CONTENTS OF SUPPLEMENT.

PERSONAL 173
Obituary 173
ENGINEERING SOCIETIES 173
Coming Technical Meetings 173
NEW PUBLICATIONS 174
Trade Publications 174
CONSTRUCTION NEWS:
Condensed List of Contracts Pending 174
Railways 175
Street and Electric Railways 175
Electric Light and Power 175
Bridges 176
Buildings 176
Water-Works 177
Irrigation 178
Sewerage 178
Garbage Disposal and Street Cleaning 178
Streets and Roads 178
Manufacturing Plants 178
Gas Plants 178
Miscellaneous Contracts 179
Contract Prices 179
INDUSTRIAL NOTES 180

PERSONAL.

Mr. C. S. Brown has been elected President of the Toledo (O.) water-works.

Mr. Edward A. Pearson has been appointed City Engineer of Albuquerque, N. Mex.

Mr. Philip Minger has been elected Superintendent of the water-works at Middletown, O.

Mr. George Spearen has been appointed Superintendent of Water-Works, of Warren, Ill.

Mr. Hugh McLennan, Board of Trade Harbor Commissioner, of Montreal, Que., has resigned.

Mr. William Martin Aiken has resigned his position as Supervising Architect of the Treasury Department, Washington, D. C.

Messrs. Willis O. Benedict and Arthur A. Amidon have been appointed members of the Board of Public Works of Jamestown, N. Y.

Mr. John S. Wilson has been elected President of the Baltimore, Chesapeake & Atlantic Ry., succeeding Mr. J. E. Searles, who has resigned.

Mr. A. H. McAlpine, formerly Superintendent of Water-Works, of Columbus, O., has been engaged by the Hersey Mfg. Co., South Boston, Mass., as a representative.

Mr. John Hickey has been appointed General Master Mechanic of the Rio Grande Western Ry., with headquarters at Salt Lake City, to succeed Mr. Q. Lamplugh.

Mr. Charles K. Huntley, Manager of the Buffalo General Electric Co., has been appointed Park Commissioner of Buffalo, N. Y., to succeed Gen. John C. Graves, resigned.

Mr. W. O. Sprigg has resigned his position as Superintendent of the Staten Island Rapid Transit Co. to accept that of Assistant Division Superintendent on the Southern Ry.

Mr. Isaac C. Brewer has been appointed City Engineer of Sandusky, O. He is a graduate of Cornell University and a member of the Engineering Association of the South.

Prof. Albert L. Arey, civil engineer, of the Free Academy, Rochester, N. Y., has been offered a position in the Engineering Department of Pratt Institute, Brooklyn, N. Y.

Major William H. Heuer, Corps of Engineers, U. S. A., has been ordered to relieve Lieut. Mason M. Patrick, at Cincinnati, O., the latter having been transferred to Memphis, Tenn.

Col. John W. Barlow, Corps of Engineers, U. S. A., Division Engineer of the Southwest Division, has been ordered to Green Bay, Wis., as Division Engineer of the Northwest Division.

Mr. W. H. Barnes has been appointed City Engineer, Mr. Jas. Ramsey, Street Commissioner, and Mr. J. Marshall, Superintendent of Electric Light Plant, of the city of Topeka, Kan.

Mr. R. Marpole, Superintendent of the Pacific Division of the Canadian Pacific Ry., has been appointed General Superintendent of that division, to succeed Mr. H. Abbott, who has resigned.

Mr. A. A. Allen, Assistant General Manager of the Missouri, Kansas & Texas Ry., has been appointed Vice-President and General Manager, to succeed Mr. T. C. Purdy, who has resigned.

Mr. Pierre Jay, Assistant Secretary and Treasurer of the St. Paul & Duluth R. R., has been elected President of the Second Avenue R. R. Co., of New York city, to succeed Mr. John D. Crimmins, resigned.

Mr. William Ethelbert Belknap, Assoc. M. Am. Soc. C. E., Engineer of the Wallabout Improvement in the Department of City Works, Brooklyn, N. Y., was married April 22 to Miss Helen Brett Runyon, of Brooklyn.

Capt. Graham D. Fitch, Corps of Engineers, U. S. A., has been relieved of duty under the Mississippi River Commission, at Memphis, Tenn., and ordered to duty at the U. S. Engineer School, Willetts Point, N. Y.

Mr. A. Stanley McGoughen, civil engineer, of Philadelphia, Pa., had his skull fractured by a large boulder on May 3, while standing on a bridge over a chasm, surveying, at Thirty-third St., in that city. His injuries are not thought to be fatal.

Mr. Charles E. Collins has been appointed Superintnedent of the Miami Valley Street Ry., of Piqua, O., succeeding Mr. Herbert L. Johnston, who resigned several months ago. Mr. Joseph M. Kussman has been Acting Superintendent in the interval.

Mr. Samuel Whinery, M. Am. Soc. C. E., was tendered a complimentary farewell dinner at the club rooms of the Engineers' Club of Cincinnati, O., on the evening of April 29, on account of his departure to New York city as a future home and place of business.

Mr. W. H. Brimson has been appointed Superintendent of the Ohio Division of the Baltimore & Ohio Southwestern Ry., with headquarters at Chillicothe, Mo., succeeding Mr. C. H. Harvard, who has been appointed Superintendent of Terminals at Cincinnati.

Mr. Nathaniel Roberts, M. Am. Soc. C. E., consulting engineer, 120 Liberty St., New York city, will leave New York by the steamship "City of Paris," on June 9, for a visit to London and Paris, but will be back to business on July 19. This corrects the notice which appeared in these columns last week.

Mr. William E. McClintock, of the Massachusetts State Highway Commission, has been elected Consulting Engineer of Chelsea, Mass. Mr. Charles H. Black, Acting Superintendent of Streets, has been elected to temporarily fill the place made vacant by the resignation of Mr. J. H. Stubbs, City Engineer. He was formerly Superintendent of Streets.

Mr. John Roach, Roadmaster of the New York & Greenwood Lake Divisions of the Erie R. R., with headquarters in Jersey City, N. J., has also been appointed Roadmaster of the New Jersey & New York R. R. Division of the road, succeeding Mr. L. Doyle, transferred. Mr. Roach is now filling the positions formerly held by three men and is also working under two superintendents. This is a notable departure in railroad management.

Mr. John N. Beckley, President of the Rochester Ry. Co., Rochester, N. Y., has resigned. He has held the office since the organization of the road in 1890. He is also President of the Toronto, Hamilton & Buffalo Ry., and resigns because of the pressure of other work. Mr. Benjamin Graham, of New York, Vice-President, also resigned. Mr. Frederick Cook was elected President to succeed Mr. Beckley, and General Manager Nichol was elected Vice-President. Mr. G. Morehouse, who has been acting temporarily as Secretary, was elected permanently to that position, succeeding Mr. E. C. Williams.

Mr. Richard Somers Hayes has been elected a Manager of the Delaware & Hudson Canal Co. to succeed Mr. Cornelius Vanderbilt, who declined re-election on account of ill health. Mr. Hayes, as a practical railroad man, was connected with the system of roads in the Southwest, now known as the Gould System, from 1870 to 1883. He has been President of the New York & Northern Ry., now the Putnam Branch of the New York Central & Hudson River R. R., and has been President of the St. Paul & Duluth Ry. Co. since July, 1888. He was one of the receivers of the Central of Georgia Ry., and a member of the reorganization committee of the Atchison, Topeka & Santa Fe Ry. Co.

OBITUARY.

Major W. M. Boyne, who was reported in our last issue to have been struck by a freight train on the Western Maryland R. R., at Williamsport, Md., April 25, died May 1 in the City Hospital, York, Pa.

Mr. John H. Langdon, Surveyor and a Director of the Indianapolis Water Co., Indianapolis, Ind., died May 7, aged 53. He had held the position of Surveyor for the past 22 years, and had sole charge of developing the plant.

Mr. Alan Macdougall, M. Can. Soc. C. E., of Toronto, Ont., died April 23, at Exmouth, England. He was a native of Scotland and went to Toronto about 20 years ago. For a number of years he was Assistant City Engineer, retiring eight or ten years ago, since which time he has been a consulting engineer. He made some important investigations to determine the direction and velocity of the currents in Lake Ontario, and made a valuable report upon the northern chain of lakes as a source of water supply for Toronto. In 1894 he was Vice-President of the Canadian Society of Civil Engineers.

Mr. John H. Cooper, M. Am. Soc. M. E., died at Philadelphia, Pa., May 9, aged 68. He had been a member of the Franklin Institute for the past 25 years, and from 1870 to 1873 was one of the Board of Managers. At the time of his death he was a member of the Institute Committee on Science and the Arts, and was connected with the firm of Henry R. Worthington. He designed the centrifugal pumps for the United States Navy Yard at Mare Island, California. Mr. Cooper was the author of several works on mechanical engineering subjects, and had contributed many papers to the proceedings of engineering societies and to engineering journals.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

CENTRAL RAILWAY CLUB.
May 14. "Brick Arches in Locomotive Fireboxes" and "Steel Shapes for Trucks." Secy., H. D. Vought, Buffalo "Courier," Buffalo, N. Y.

ENGINEERS' CLUB OF COLUMBUS.
May 15. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.

ENGINEERS' CLUB OF PHILADELPHIA.
May 15. Secy., L. F. Rondinella, 1122 Girard St.

ENGINEERS' CLUB OF MINNEAPOLIS.
May 17. Secy., Elbert Nexsen, 1620 S. E. 4th St., Minneapolis, Minn.

TECHNICAL CLUB OF OMAHA.
May 17. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' SOC. OF WESTERN PENNSYLVANIA.
May 18. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg.

WESTERN RAILWAY CLUB.
May 18. Secy., W. D Crossman, The Rookery, Chicago.

COLUMBIAN ENGINEERING SOCIETY.
May 18. Secy., F. W. Hart, 15th and H Sts., N. W., Washington, D. C.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
May 19. Secy., F. Van Vleck, Los Angeles, Cal.

ASSOCIATION OF ENGINEERS OF VIRGINIA.
May 19. Secy., J. A. Pilcher, Roanoke, Va.

BOSTON SOCIETY OF CIVIL ENGINEERS.
May 19. Secy., S E. Tinkham, City Hall.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.
May 19. Secy., R. W. Pope, 26 Cortlandt St., New York city.

WESTERN FOUNDRYMEN'S ASSOCIATION.
May 19. Secy., A. Sorge, Marquette Building, Chicago.

ENGINEERS' CLUB OF ST. LOUIS.
May 19. Secy., Richard McCulloch.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
May 19. Annual meeting at Quebec, June 30 to July 2. Secy., C. W. Hunt, 127 E. 23d St., New York city.

ENGINEERS' CLUB OF CINCINNATI.
May 20. Secy., J. F. Wilson, P. O. Box, 333.

NEW YORK RAILROAD CLUB.
May 20. Secy., W. W. Wheatly, 168 Montague St., Brooklyn.

CANADIAN SOCIETY OF CIVIL ENGINEERS.
May 20. Secy., C. H. McLeod, 112 Mansfield St., Montreal.

INDIANAPOLIS ENGINEERING CLUB.
May 22. Secy., Edson F. Folsom, Indianapolis, Ind.

WISCONSIN POLYTECHNIC SOCIETY.
May 25. Secy., W. K. Means, Loan and Trust Bldg., Milwaukee, Wis.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
May 25 to 28, at Hartford, Conn. Secy., F. R. Hutton, 12 West 31st St., New York city.

ENGINEERING ASSOCIATION OF THE SOUTH.
May 27. Secy., L. P. Brown, Nashville, Tenn.

WESTERN SOCIETY OF ENGINEERS.
June 2. Secy., N. L. Littleton, Monadnock Block, Chicago.

BROOKLYN ENGINEERS' CLUB.
June 3. Secy., A. J. Provost, Jr., 191 Montague St.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
June 4. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

ENGINEERS' SOCIETY OF WESTERN NEW YORK.
June 7. Secy., Henry Vier, Library Bldg., Buffalo.

MASTER CAR BUILDER'S ASSOCIATION.
June 8. Annual meeting at Old Point Comfort, Va. Secy., J. W. Cloud, Rookery Bldg., Chicago, Ill.

DENVER SOCIETY OF CIVIL ENGINEERS.
June 8. Secy., Walter Pearl, 36 Jacobson Bldg.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
June 8. Secy., F. A. Coburn, Case Library Bldg.

AMERICAN WATER-WORKS ASSOCIATION.
Annual meeting at Denver, Colo., June 8, 9 and 10. Secy., Peter Milne, 95 William St., New York city.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
June 10. Secy., James K. Zollinger, Norton Bldg.

NORTHWESTERN TRACK AND BRIDGE ASSOC.
June 11. Secy., D. W. Meeker, St. Paul, Minn.

ST. LOUIS RAILWAY CLUB.
June 11. Secy., H. H. Roberts, 511 Commercial Bldg.

MONTANA SOCIETY OF ENGINEERS.
June 12. Secy., Albert S. Hovey, Helena.

ENGINEERS' CLUB OF KANSAS CITY.
June 14. Secy., F. W. Tuttle, Baird Bldg.

AMERICAN RAILWAY MASTER MECHANICS' ASSOCIATION.
June 14. Annual meeting at Old Point Comfort, Va. Secy., J. W. Cloud, Rookery Building, Chicago, Ill.

ENGINEERS' CLUB OF CINCINNATI.—At the April meeting Mr. Samuel Whinery, M. Am. Soc. C. E., read a paper on "The Water Supply Problem for Cincinnati," which was in reply to criticisms of the plans proposed by the Engineer Commission in its report to the Board of Administration, contained in papers read at the March meeting. J. F. Wilson, Secy.

BROOKLYN ENGINEERS' CLUB.—On May 6 about 50 members visited the caisson for the New York tower of the new East River bridge. The excursion was in charge of Mr. R. L. Martin, Resident Engineer. Afterwards the party dined at the Clarendon Hotel. In the evening, at the regular meeting, Mr. F. A. Barron read a paper on "Lighting the Channels of New York Harbor by Electric Light." A. J. Provost, Jr., Secy.

ENGINEERS' CLUB OF ST. LOUIS.—At the meeting on May 5 a paper by Mr. W. A. Layman, entitled "Long Distance Electric Power Transmission," was read. The writer briefly reviewed the methods of electric power generation and the different systems of electric transmission, and showed how the two-phase and three-phase electric currents are peculiarly adapted to long distance transmission. He described in detail the recent installations at Sacramento and Fresno, Cal.; Telluride, Colo., and Salt Lake City, Utah. Mr. C. G. Barth then made an address on "Columns." He showed the result of eccentric loading, and gave a new formula which he had derived for use in the designing of columns. He exhibited curves showing how his formula compared with those in common use. Richard McCulloch, Secy.

AMERICAN SOCIETY OF CIVIL ENGINEERS.—At the meeting of the society held May 5 a paper on "Asphalt and Asphalt Pavements" was read in abstract by Mr. Geo. W. Tillson and briefly discussed by M. E. Evans, E. P. North and others. The paper briefly summarized the latest opinions concerning the chemical and physical composition of bitumen and asphalts, and described the nature of the asphalts obtained from Trinidad, California and other well-known locations. This general information was followed with the more specific questions of the construction, durability, maintenance and cost of asphalt

pavements, and the extent and success of their use in American and foreign cities. In the discussion which followed Mr. M. E. Evans outlined briefly the experience of New York city in constructing and maintaining asphalt pavements, and called attention particularly to the various causes of decay, its destruction from numerous openings of the streets, and other causes.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.—At the meeting on May 3 a paper prepared by the President, Mr. Hilgard, on "Some Standard Plans for Girder Bridges on the Northern Pacific Ry.," was presented. The paper set forth the economical and other advantages of the standard 100-ft. plate-lattice girder designed by Mr. Hilgard, which has been in use for the past two years. The method of replacing (in the space of about four hours) the old structure on temporary foundations with the new girder bridge on concrete foundations previously built was definitely described. The pound prices for bridge complete contracted for in 1895 averaged 3½ cts., in 1896 about 3 cts., and will not exceed 2¾ cts. for the present year. Mr. Hilgard's scheme of complete standard plans of uniform size, blue printed from photographic negatives, for bidders, inspectors and office use, furnishes in abundance at small cost the details so necessary to definite treatment of this class of work. C. L. Annan, Secy.

NEW PUBLICATIONS.

REPORT OF THE STATE BOARD OF HEALTH UPON THE SANITARY CONDITION OF THE NEPONSET MEADOWS in the Towns of Canton, Sharon, Norwood, Dedham, Milton and Hyde Park, Mass. 8vo.; paper; pp. X., 33; 3 folding maps and two full-page photogravures. Address the Board, State House, Boston.

The scope of this report and the recommendations which it contains are presented briefly elsewhere in this issue. Most of the volume is taken up with the reports of the engineer of the Board, Mr. X. H. Goodnough, and of Mr. H. W. Clark, of the Lawrence Experiment Station, Lawrence, Mass.

LITERARY MAGAZINES.—The April "Fortnightly," like the other English reviews, is chiefly given up to question of international politics. We note, however, a paper on "Market Wrecking," in which the author, Wm. E. Bear, makes a serious attempt to prove that speculation in grain, produce or other merchandise, by the trading in "futures," "puts and calls," "options," or, in fact, any devices by which men lay wagers on the future price of an article, tends on the whole to lower the market price of that article. We are by no means certain that this is not the case, but Mr. Bear's argument does not seem a conclusive one, as he bases it on assumptions the truth of which is by no means self-evident.

In "Scribner's" we find a story remarkably well told, from a literary point of view, of a station operator who in a moment of absent-mindedness forgets to hang out a red lantern to stop an express train, and when it passes his station goes through agonies of mental torture in the belief that his error has caused a head collision. The opposing train, however, is delayed by a hot box, and thus collision is happily averted. The story is so well told that it seems a pity to criticise it; but criticised it must be; for no railway which ever ran express trains ever ran them on such a system of train movement as this writer describes. She has apparently never heard of a train dispatcher and how trains really are moved over a railway line. Such blunders are inexcusable in a piece of literary work, on the part of either author or editor. Ten minutes' talk with any railway superintendent or even a station agent or conductor would have enabled the writer to have made her story true to life, whereas now those who read her story and believe it to be a true representation of the system—or lack of system—on which trains are moved will have good ground for uneasiness when they take a journey by rail.

In the April "Contemporary Review" Prof. Dicey discusses the scheme for "A Common Citizenship for the English Race." His proposal in brief is that an act of Parliament should make every citizen of the United States a British subject during the continuance of peace between the two countries, and an act of Congress should likewise bestow the rights of American citizens upon British subjects. The arguments which Prof. Dicey gives in support of this scheme are very strong ones, and deserve the attention of statesmen; but with political matters in this country in control of men whose sole idea of international relations appears to be hostility to everything English, we see no prospect that Prof. Dicey's plan will ever receive consideration in this country. In the "Money and Investments" department of this magazine it is of interest to note that the editor recommends the best class of American railway stocks as among the most promising investments on the market at the prices now ruling.

The May "Cosmopolitan" has two papers which deserve mention here. The first is a description of the new Congressional Library, one of the few great public buildings of this country of which we can rightly be proud. The other is a paper by President Gilman, of Johns Hopkins University, which is entitled, "Modern Education," but which relates especially to the heedless and haphazard manner in which youths too frequently select their life-work or profession.

The "Popular Science Monthly" for May contains a paper by Prof. Victor C. Vaughan on the "Bubonic Plague," a brief sketch of James Nasmyth, the inventor of the steam hammer, and an illustrated account of the construction of improved roads under direction of the Massachusetts Highway Commission.

"The Review of Reviews" has a paper by President David Starr Jordan, of Leland Stanford, Jr., University, on the solution of the fur seal question, on which so much ink has been spilt and which has been the excuse for the cultivation of no small amount of international bad feeling. The solution of the problem is simply for the United States to brand the female seals, thereby making their skins worthless. Pelagic sealing will then be no longer profitable, and so the seals will no longer be molested. The editorial comments upon current events are vigorous and able, as usual. The magazine is winning a well deserved reputation for the candor and fairness with which it discusses the leading questions of the day.

The May "North American Review" contains a paper by Mr. J. A. Latcha, M. Am. Soc. C. E., on cheap transportation in the United States. The paper is an argument against the prevalent idea that ship canals are the solution of the problem of cheap transportation. Mr. Latcha believes that a railway built with very low grades and easy curves is a cheaper method of transportation than any artificial canal. He advocates the construction of a railway with low grades and easy curves, designed especially for economically moving freight, from Chicago to New York. The route suggested is from Cleveland, Akron or Massillon east via Wampum, Butler, Punxatawney, Phillipsburg, Lock Haven, Williamsport, Rupert and Tamanend. The distance from New York to Chicago by this route could be reduced to 850 miles, and maximum grades of 20 ft. per mile eastward and 30 ft. westward are proposed. Mr. Latcha believes that such a road couuld haul bulk freights between its terminals for not more than 1¼ mills per ton mile, or 3 cts. per bushel for grain from Chicago to New York. There will doubtless be many vigorous dissenters from Mr. Latcha's conclusions; but his arguments are at least worthy of careful and unprejudiced consideration.

In "The Century" we find a valuable series of articles on kites and kite-flying, which summarize in an admirable manner the recent work that has been done with kites in aerial photography, in meteorological work and in experiments looking toward aerial navigation. The writers of these articles are Mr. W. A. Eddy, of Bayonne, N. J.; Mr. J. B. Millet, of the Blue Hill Observatory, and Lieut. Hugh A. Wise, U. S. A. The kite work in meteorology is already on a plane of no small practical value. The highest altitude thus far recorded was reached at the Blue Hill Observatory on Oct. 8, 1896, when the meteorograph was sent to a height of 8,740 ft. above the ground, or 9,375 ft. above sea level. In this ascent nine kites with a total area of 173 sq. ft. were used to lift the instrument and the 3 miles of steel wire which held the "team" to the ground. Scientific kite-flying is such an attractive and interesting field that we doubt not many engineers will take it up in an amateur way, and these "Century" papers are as valuable a record of progress to date as we know of anywhere. The gem of this number of the "Century" is an illustrated description of the country place of Prof. Chas. S. Sargent, at Brookline, Mass. Any of our readers who have any interest in landscape architecture should not fail to read this article and its record of what is doubtless one of the most successful pieces of artistic landscape work that exists in this or any other country. A well written paper on Tennessee and its centennial in the same magazine also deserves mention here.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3 1-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

PUMPS.—Moore Steam Pumps. Union Steam Pump Co., Battle Creek, Mich. Pamph., 6 x 3½ ins.; pp. 48.

The Moore steam pump is of the single cylinder direct-acting type, with steam-actuating valves.

MECHANICAL STOKER.—The Playford Stoker Co., Cleveland, O. Pamph., 6 x 9 ins.; pp. 11; illustrated.

This pamphlet illustrates and describes briefly the well-known automatic stoker manufactured by the above firm.

HYDRANTS.—Howard Iron Works, Buffalo, N. Y. Pamph., 5 x 7 ins.; pp. 10; illustrated.

This pamphlet illustrates and describes the various styles of hydrants and appurtenances made by the above firm.

CERION.—Egyptian Preservative Co., Philadelphia, Pa. Pamph., 5 x 7 ins.; pp. 6.

This pamphlet advances the claims of the above company for its protective and preservative coating for iron and steel, to which it has given the name of cerion.

GASOLINE ENGINES.—Waterloo Gasoline Engine Co., Waterloo, Iowa. Pamph., 6 x 9½ ins.; pp. 18; illustrated.

This pamphlet describes and illustrates in a general manner the different sizes of gas and gasoline engines made by this firm. Particular attention is paid to a portable engine, which has been recently put on the market.

STEAM ENGINE GOVERNORS.—The Nordberg Patent Automatic Cut-Off Governor. Nordberg Mfg. Co., Milwaukee, Wis. Pamph., 7¾ x 5½ ins.; pp. 46.

The Nordberg governor is of the trip cut-off type, applied, not as is usual with automatic cut-off governors to the slide valve of the engine, but to a double beat poppet valve placed in the steam pipe just above the steam chest. The governor has been in successful use for several years. It may be applied to any ordinary throttling engine by substituting it for the throttling governor.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
May 13.	Sewer pipe, Erie, Pa.		
May 13.	Repairing pavement, Erie, Pa.		May 13
May 13.	Sewers, Deering, Me.		May 13
May 13.	Sewers, Kansas City, Mo.		May 13
May 13.	Brick sewers, Detroit, Mich.		May 13
May 13	Business building, Wilmington, Del.		May 13
May 13.	**Steel bridges (3), Toronto, Ont.**		Apr. 22
	Advertised, Engineering News, Apr. 22.		
May 13.	Steel highway bridge, Chesley, Ont.		May 6
May 14.	Brick paving, Minneapolis, Minn.		May 6
May 14.	Asphalt paving, New York, N. Y.		May 6
May 14.	**Repairing pier at Portage Lake, Mich.**		Apr. 22
	Advertised, Eng. News, Apr. 22 to May 13.		
May 14.	**Dam, power house, etc., Manchester, N. H.**		Apr. 22
	Advertised, Eng. News, Apr. 22 and 29.		
May 14.	**Water bonds ($5,000), Mabel, Minn.**		Apr. 29
May 14.	Commerce building, Cleveland, O.		May 6
May 14.	Asphalt paving, Rochester, N. Y.		May 6
May 14.	Sewers, New York, N. Y.		May 6
May 14.	Wiring station houses, Jersey City, N.J.		May 13
May 15.	Electric light plant, Mellen, Wis.		May 13
May 15.	Bridge, Moro, Ore.		May 13
May 15.	Wooden bridge, Jasper, Minn.		May 13
May 15.	Office building, Toronto, Ont.		May 13
May 15.	Water-works, Mellen, Wis.		May 13
May 15.	Artesian well, Mission Hill, S. Dak.		May 13
May 15.	Pipe sewers, Barre, Vt.		May 6
May 15.	Water-works, Sand Beach, Mich.		May 6
May 15.	**Water-works, Plano, Tex.**		Apr. 29
May 15.	Steel bridge, Providence, R. I.		Apr. 29
	Advertised, Eng. News, Apr. 29 to May 13.		
May 15.	**County bonds ($20,000), The Dalles, Ore.**		Apr. 22
May 15.	Court house, etc., Fort Wayne, Ind.		Apr. 8
	Advertised, Eng. News, Apr. 8 to 29.		
May 15.	Railway ties for 5 years, St. Louis, Mo.		Apr. 15
May 15.	Irrigation bonds, San Diego, Cal.		May 6
May 15.	Canal, tunnel, etc., Redlands, Cal.		May 6
May 15.	Macadamizing (3 miles), Harrisville, R.I.		May 6
May 15.	Macadamizing, Kansas City, Mo.		May 6
May 16.	Court house, Whitesburg, Ky.		Apr. 29
May 17.	**Sewers, Pelham Manor, N. Y.**		Apr. 29
	Advertised, Eng. News, Apr. 29 to May 13.		
May 17.	Bridge, Lehigh Tannery, Pa.		Apr. 29
May 17.	**Breakwater at Burlington, Vt.**		Apr. 22
	Advertised, Eng. News, Apr. 22 to May 13.		
May 17.	Water bonds ($10,000), Delphos, O.		May 6
May 17.	Building addition, Hamilton, O.		May 6
May 17.	Repairing sidewalks, etc., Youngstown, O.		May 6
May 17.	Water-works franchise, St. Lambert, Que.		May 6
	Advertised, Engineering News, May 6.		
May 17.	County bridges (1-yr. cont.), Hebron, Neb.		May 6
May 17.	Sewer franchise, St. Lambert, Que.		May 6
	Advertised, Engineering News, May 6.		
May 17.	Sewage p'mp'g station, Nat'l Sol. Home, Va.		May 13
May 17.	School building, New York, N. Y.		May 13
May 17.	County jail, Davenport, Ia.		May 13
May 17.	Building work, Baltimore, Md.		May 13
May 17.	School building, Jersey City, N. J.		May 13
May 17.	Water pipe, Chicago, Ill.		May 13
May 17.	Dock, Baltimore, Md.		May 13
May 18.	Paving, Chicago, Ill.		May 13
May 18.	Paving, New York, N. Y.		May 13
May 18.	Road improvement, Newtown, L. I., N. Y.		May 13
	Advertised, Engineering News, May 13.		
May 18.	Electric light plant, Buffalo, N. Y.		May 13
May 18.	Steel bridges (3), Rockport, Ill.		May 13
May 18.	Masonry, piers, etc., Buffalo, N. Y.		May 6
May 18.	Water-works, Milan, Tenn.		May 6
	Advertised, Engineering News, May 6.		
May 18.	**Water bonds ($30,000), Sharon Springs, N.Y.**		May 6
	Advertised, Eng. News, May 6 and 13.		
May 18.	Post office, South Bend, Ind.		May 6
May 18.	Annex, Blackwell's Island, N. Y. H.		May 6
May 18.	Sidewalk construction, Clinton, Ia.		May 6
May 18.	Electric light plant, etc., Milan, Tenn.		May 6
	Advertised, Engineering News, May 6.		
May 18.	**Electric light plant, McMinnville, Tenn.**		Apr. 22
May 18.	**Water-works, McMinnville, Tenn.**		Apr. 22
May 19.	Dredging (600,000 cu. yds.), Chicago, Ill.		Apr. 8
	Advertised, Eng. News, Apr. 8 to 29.		
May 19.	**Extending pier at Muskegon, Harbor, Mich.**		Apr. 22
	Advertised, Eng. News, Apr. 22 to May 13.		
May 19.	Electric elevator, Topeka, Kan.		Apr. 29
	Advertised, Eng. News, Apr. 29 and May 6.		
May 19.	Water-tube boilers, Cleveland, O.		Apr. 29
May 19.	Capitol building work, Albany		May 6
May 19.	Macadamizing, etc., Sea Cliff, L. I., N. Y.		May 13
	Advertised, Engineering News, May 13.		
May 19.	Asphalt paving, Brooklyn, N. Y.		May 13
May 19.	Iron bridge, Waupaca, Wis.		May 13
May 19.	Sewer extension, Jersey City, N. J.		May 13
May 19.	Building repairs, New York, N. Y.		May 13
May 19.	Addition to school, Whitewater, Wis.		May 13
May 19.	Freight elevator, New York, N. Y.		May 13
May 19.	Heating school building, Buffalo, N. Y.		May 13
May 20.	Garbage removal, Baltimore, Md.		May 13
May 20.	Copper wire (300 miles), Brooklyn, N.Y.		May 13
May 20.	Scales, weights, etc., Washington, D. C.		May 13
May 20.	Electric light fixtures, Waseca, Minn.		May 13
May 20.	Water-works, Littlestown, Pa.		May 6
	Advertised, Engineering News, May 6.		
May 20.	Cold storage machinery, Gallipolis, O.		May 6
May 20.	Wall, etc., Mansfield, O.		May 6
May 20.	Plumbing, gas, water pipe, etc., West Point.		Apr. 29
May 20.	Bridge substructure, Toledo, O.		Apr. 29
May 20.	**Plans for court house, Anderson, S. C.**		Apr. 22
May 20.	**Bonds ($40,000), Union, S. C.**		Apr. 22
May 20.	Ditch (11 miles), Rantoul, Ill.		May 6
	Advertised, Engineering News, May 6.		
May 20.	Road work, Eastchester, N. Y.		May 13
	Advertised, Engineering News, May 13.		
May 21.	Water-tube boilers (2), Columbus, O.		May 6
May 21.	**Water pipe, castings, etc., Hatfield, Mass.**		Apr. 29
	Advertised, Eng. News, Apr. 29 and May 6.		
May 21.	**Water-works, Champlain, N. Y.**		Apr. 29
	Advertised, Eng. News, Apr. 29 to May 13.		
May 21.	Water supplies, Syracuse, N. Y.		May 21
	Advertised, Engineering News, May 13.		
May 21.	Brick paving (14,000 sq.yds.), Iowa City, Ia.		May 13
May 22.	Macadamizing, etc., Arverne, L. I., N. Y.		May 13
	Advertised, Engineering News, May 13.		
May 22.	Brick sewer, Cleveland, O.		May 13
	Advertised, Engineering News, May 13.		
May 22.	**Viaduct approach, Cincinnati, O.**		May 6
May 22.	Main sewer, Cleveland, O.		May 6
May 24.	Water-works, Oswego, Ill.		May 6
	Advertised, Engineering News, May 6.		
May 24.	Macadamizing, Kansas City, Mo.		May 13
May 24.	Extending waterworks, Westchester, Pa.		May 13
	Advertised, Engineering News, May 13.		
May 24.	Wooden bridges (2), Minnewaukon, N. Dak.		May 13
May 24.	Earth embankment, Evansville, Ind.		May 13
	Advertised, Engineering News, May 13.		
May 24.	Asphalt paving, etc., New York, N. Y.		May 13
May 24.	**Railway station, Dallas, Tex.**		May 13

May 25. Electric l't'g contract, Owen Sound, Ont..May 13
May 25. Water supplies, Cincinnati, O. .....May 6
May 25. Water-works, Sharon Springs, N. Y.....May 6
Advertised, Engineering News, May 6.
May 26. Light house, Boston, Mass. .....May 6
May 26. Brick paving, etc., Cleveland, O. .....May 6
May 26. Dredging and excav., Eastchester Crk, N.Y. Apr. 29
Advertised, Eng. News, Apr. 29 to May 20.
May 26. School bonds ($300,000), Newark, N. J. ...May 13
May 26. Sale of ship wrecks (2), Montreal, Que...May 13
May 27. Brick sewers, Quincy, Mass.....May 13
Advertised, Engineering News, May 13.
May 27. Life saving station, etc., Washington, D.C..May 13
Advertised, Engineering News, May 13.
May 27. Life saving station, Salisbury Beach, Mass. May 13
May 27. Projectiles, Washington, D. C.....May 6
May 28. Sewage disposal plant, Baltimore, Md. ....May 13
May 29. Paving blocks, etc., Washington, D. C...May 13
Advertised, Engineering News, May 13.
May 29. Electric light plant, etc., Pensacola, Fla...Apr. 29
Advertised, Eng. News, Apr. 29 to May 20.
June 1. Drainage canals, etc., New Orleans, La. Mar. 25
Advertised, Eng. News, Mar. 25 to Apr. 29.
June 1. Pumping stations, etc., New Orleans, La. Mar. 25
Advertised, Eng. News, Mar. 25 to Apr. 29.
June 1. Rock excavating, Oswego, N. Y. .....May 6
Advertised, Eng. News, May 6 to 27.
June 1. Removing boulders, etc., Detroit, Mich...May 13
Advertised, Eng. News, May 13 to 27.
June 1. Bridge repairing (1-yr. cont.), Wayne, Neb. May 13
June 1. Electric lighting (5-yr. cont.), Mobile, Ala..May 13
Advertised, Eng. News, May 13 and 20.
June 1. Irrigation bonds ($200,000), Modesto, Cal..May 13
June 1. Library building, Madison, Wis. .....May 13
June 1. Removing wreck, New York, N. Y.....May 13
Advertised, Eng. News, May 13 to 27.
June 1. College buildings, Charlottestown, P.E.I..May 13
June 1. Water bonds ($16,000), W. Alexandria, O..May 13
June 2. Sewer, Cleveland, O. .....May 13
June 2. Water-works impvts, Michigan City, Ind. May 13
Advertised, Engineering News, May 13.
June 3. Canal work (8 miles), Chicago, Ill.....Apr. 15
Advertised, Eng. News, Apr. 15 to May 6.
June 4. Stone (30,000 tons), St. Augustine, Fla...May 6
Advertised, Eng. News, May 6 to 27.
June 5. Sheriff's residence, Grundy Centre, Ia.....May 6
June 5. Grading, curbing, etc., Hamilton, O. .....May 13
June 7. Bonds ($92,000), Fort Benton, Mont.....May 6
June 8. Electric railway, Barcelona, Spain.. ....May 13
June 10. Court house and jail, Anderson, S. C.....Apr. 29
June 12. School building, Castle Grove, Ia.....May 13
June 14. Water-works ($17,000), Natchitoches, La..May 13
June 15. Iron work, St. Paul, Minn. .....Apr. 29
June 15. Railway bonds, Toronto, Ont. .....May 13
Jun. 23. Court house, Anderson, S. C. .....Apr. 22
July 1. Court house, Anderson, S. C.....May 13
July 10. Plans for capitol building, Harrisburg, Pa..Apr. 29
July 24. Plans for capitol, Harrisburg, Pa.....May 13
Nov. —. Plans for public building, Mexico, Mex...May 6

RAILWAYS.

ALBANY, SCHOHARIE & HELDERBERG.—A press report states that this company proposes to commence at once the construction of its line from Albany to Thompson's Lake, passing through Clarksville, Berne, East Berne, Gallupville, etc. Pres., Van Valkenburg, Albany, N. Y.

ARKANSAS CENTRAL.—This company was incorporated in Arkansas to construct a railway from Fort Smith, Ark., to Paris, Tex., a distance of about 40 miles. The capital stock of the company is $600,000, half of which is said to have been subscribed by Chas. C. Godman, of Chicago, and Joseph H. Larimer, Peru, Ind.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—This company is said to be replacing the rails now in use between Columbus and Springfield, O., with 80-lb. steel rails. G. W. Kittredge, Ch. Engr., Cincinnati, O.

COLESBURG, IA.—W. C. Kirchbeck, Secy., writes us as follows: Bids on the construction of the M. C. & M. Ry. from this town to connect with the Chicago Great Western at a point 15 or 16 miles distant will be received by the company at the offices here.

CUMBERLAND VALLEY.—It is stated that this company will build an extension to Williamsport this summer, a distance of about one mile. T. J. Brerton, Engr., Chambersburg, Pa.

DENVER, CRIPPLE CREEK & SOUTHERN.—This company has been incorporated, with a capital stock of $1,000,000, to build and operate a steam or electric railway from Garo, on the South Park road, to Canon City, making connection with the Atchison, Topeka & Santa Fe. The incorporators are Charles T. Case and Geo. S. Freeman, Colorado; Charles E. Funk, Chicago; Samuel L. Blake, Detroit, Mich., and Frank W. Corrigan, St. Louis, Mo.

KANSAS CITY, OSCEOLA & SOUTHERN.—A press report states that General Manager B. S. Josselyn, Clinton, Mo., has received orders to rebuild at once the Kansas City & Southeastern branch from Dodson to Westport, a distance of about 12 miles.

LEWISBURG & BUFFALO VALLEY.—This company has been incorporated, with a capital stock of $30,000, of which $3,000 has been paid in. It is proposed to construct a railway from Kulps Station, Union county, to Lewisburg, Pa. Pres., Monroe H. Kulp, Shamokin, Pa.

LUCKIAMUTE VALLEY & WESTERN.—This company has been incorporated, with a capital stock of $50,000, to build a railway from Salem, Ore., to Falls City. The company also proposes to build and operate saw mills, electric lines, etc., and to operate a line of steamers on the Willamette River. H. E. Chipman, J. S. Talbot, Frank Butler, H. S. Montgomery, F. A. Lucas and J. O. Montgomery are the incorporators, with offices in Falls City.

MILWAUKEE & SUPERIOR.—A press report states that this company has let the contract for extending the road from Sussex to North Lake, in Waukesha county, a distance of about 10 miles, to Bracey, Townsend & Co., Chicago, Ill. The cost is said to be about $70,000. Pres., W. Smith, Milwaukee, Wis.

MINNEAPOLIS & ST. LOUIS.—Press reports state that this company is considering the extension of its line to Des Moines, Ia. Col. W. Brooks, Ch. Engr., Minneapolis, Minn.

PORT ARTHUR, DULUTH & WESTERN.—Bids are asked until June 15 for the purchase of first mortgage bonds, amounting to $1,497,324, and 10,640 shares of the capital stock, amounting to $1,064,000. Toronto General Trusts Co., Yonge and Colborne Sts., Toronto, Ont.

SOUTH BRANCH.—This company was incorporated May 8 with a capital stock of $120,000, of which $12,000 has been paid in. It is proposed to build a railway from Mt. Jewett, McKean county, Pa., to a point in the Kinzua Valley. Pres., Herbert C. Rich, Cattaraugus, N. Y.

SOUTHERN.—It is reported that this company proposes to build a 75-mile extension from Murphy, N. C., to Cleveland, Tenn., which will shorten its present route by about 100 miles. Ch. Engr., C. H. Hudson, 1300 Pennsylvania Ave., Washington, D. C.

SANTA FE, PRESCOTT & PHOENIX.—It is announced that a branch will be built this year from Prescott, Ariz., to the Big Bug mining district, a distance of about 25 miles. Pres., F. M. Murphy, Prescott, Ariz.

STREET AND ELECTRIC RAILWAYS.

BANGOR, ME.—F. O. Bend, President Penobscot Central Ry. Co., Bangor, writes us that surveys are in progress for the proposed electric road, to be 26 miles long and to connect Bangor with Glenburn, Kenduskeag, Corinth and Charleston. It is expected that work will be begun in about two months. Ch. Engr., G. S. Vickery, Bangor.

BATH, ME.—Chas. A. Corliss has made surveys for an electric road, 4½ miles long, to Phipsburg.

GARDNER, MASS.—We are informed that the Gardner, Westminster & Fitchburg St. Ry. Co. has not yet been fully organized. The highway commission has not yet given the company a location.

PITTSFIELD, MASS.—The Pittsfield Electric St. Ry. Co. is considering the question of a new power house, to cost $120,000. Gen. Mgr., P. C. Dolan.

SALEM, MASS.—The Lynn & Boston R. R. Co. will soon begin the construction of an extension to Asbury. H. C. Page, Supt., Salem Div., Salem.

CUMBERLAND HILL, R. I.—The Cumberland St. Ry. Co. is being organized to build an electric road to this place, from Consdale, at a cost of about $70,000. Andrew J. Currier and Thos. A. Jenckes are interested.

HARTFORD, CONN.—M. C. Webster, New Britain, Conn., writes us that only preliminary surveys have been made for the Hartford & Torrington Tramway Co.'s proposed electric road, to be 20 miles long. The right of way has been practically secured, but not the capital. No contractr have been let for the construction. Erastus Gay, Farmington, Conn.; John A. Reese, Burlington, Conn.; H. M. White, Torrington, and two others have been appointed a committee to report on plans. Up to May 3 no engineer had been engaged.

ROCKVILLE, CONN.—The Hartford, Manchester & Rockville Tramway Co. has been granted permission to construct its proposed electric road through this city. The contract has been awarded to H. W. Hildreth & Co., New York. Supt., J. L. Hall, Hartford.

NEW HAVEN, CONN.—The New Haven St. Ry. Co. has been petitioned to extend its electric road. Extensions to East Haven and Shore Beach are proposed. Gen. Mgr., G. A. W. Dodge.

BUFFALO, N. Y.—U. L. Upson, Secy. and Gen. Mgr. Buffalo, Hamburg & Aurora Ry. Co., room 500, Ellicott Bldg., Buffalo, writes us as follows in regard to the proposed electric road: The entire length of road will be 18 miles, through West Seneca, East Hamburg, Hamburg and Aurora, all in Erie county. It is to start from the city line of Buffalo at Downing St., passing along the Abbott Road and Mile Strip and through Windom, Armour, Orchard Park and Webster's Corners, the main line passing the Erie County Fair Grounds and terminating at Hamburg, a suburb of Buffalo, while the branch terminates at East Aurora, also a suburb of Buffalo, and each having a population of 2,500 or more, largely of business and professional men of this city. Traffic arrangements are under way by which the cars will enter Buffalo over the present Seneca St. line and running direct to the corner of Main and Seneca Sts., the business center of the city. It is estimated by those competent to judge that it is one of the best lines ever projected out of the city, on account of the fine country and beautiful villages along its line, its easy grades and curves and the fact that there are no railway crossings at grades. The company will issue $150,000 in bonds which will be sold outright for the construction of its line, according to future proposals. The survey is now being made, and it is hoped to have the main line in operation by September. The contracts will be let about June 1. Pres., W. W. Wheatly, Brooklyn Heights Electric Ry. Co., 168 Montague St., Brooklyn; Vice-Pres. and Attorney, A. W. Hickman, Buffalo, N. Y.; Treas., John A. Donaldson, Buffalo, N. Y.; Directors, L. J. Chase, Ernest Wende, W. G. Gregory, F. W. Everett, W. J. Wright and Loren F. Boies, all of Buffalo, and A. J. Benzing, of Orchard Park, N. Y.

MAYVILLE, N. Y.—The Westfield, Mayville & Chautauqua Motor R. R. Co. has been incorporated to construct an electric road from the shore of Lake Erie, at Barcelona, to the Chautauqua Assembly Grounds, a distance of 15 miles. The franchise is said to have already been granted. Capital stock, $150,000. Directors, John C. Mintor, Burlington, Ia.; James V. Mintor and Waldo L. Mintor, Westfield, N. Y., and others.

GREENBUSH, N. Y.—The Greenbush & Nassau Electric Ry. Co. has been incorporated; capital stock, $180,000. Wm. D. Barnes, Brainard Station, N. Y.; S. C. Curran, East Greenbush, and others are interested.

SYRACUSE, N. Y.—It is proposed to extend the Lake Electric Ry. to Liverpool, a distance of eight miles. Valentine Bond, of Liverpool, N. Y., and John S. Kaufman, of Loos, Kaufman & Co., Syracuse, are interested.

BRIDGETON, N. J.—The Bridgeton & Millville Traction Co. has been organized; capital stock, $200,000. Pres., C. Hartman Kuhn, of Philadelphia; Vice-Pres., Stephen Greene, Philadelphia; Secy. and Treas., Walter H. Bacon, Bridgeton.

JERSEY CITY, N. J.—The American Traction Co. has been incorporated to operate an electric railway in this state and New York; capital stock, $325,000, with $1,000 paid in. Incorporators, John N. Main, Middleboro, Mass.; Frank L. Wands, Brooklyn; John M. Murphy, Torrington, Conn.; Daniel H. Gilligan, Brooklyn; Howard E. Foxhall, Brooklyn; James B. W. Lansing, Tenafly; George H. Carey, New York.

PASSAIC, N. J.—The Passaic & Newark Electric Ry. Co. proposes to extend its road seven miles to Hackensack from Newark. Pres. and Gen. Mgr., E. W. Spencer, Passaic.

TRENTON, N. J.—Boody & Wheeler, Philadelphia, are reported to have been awarded the contract for constructing an electric road 25 miles long, between Doylestown, Pa., and Trenton, for the East Penn Traction Co. Jos. H. Reall, Doylestown, is interested.

DOYLESTOWN, PA.—F. F. Booz, Doylestown, writes us that a partial survey has been made for the proposed road, 13 miles long, for the Bucks County Ry. Co. All rights of way have been secured. Robt. Wetherill, Chester, Pa., has the contract, but no work has been begun. Pres., Francis Fennimore, St. Davies, Pa.

CARNEGIE, PA.—The Carnegie & Canonsburg Electric Ry. Co. has been organized to build a road, to cost about $200,000. P. Hoey and T. D. Curran, of McDonald, Pa., are interested.

BALTIMORE, MD.—J. G. White & Co., Baltimore, have been awarded the contract for 13 miles of electric work for the double track road of the Falls road division of the Baltimore & Northern Ry. John Cowan has the contract for erecting an addition, 45 × 150 ft., to the power house for the proposed increase of 500 HP. John Waters has the contract for constructing a car barn for 48 cars, and the Laclede Car Co., St. Louis, Mo., has the contract for furnishing 15 closed and 25 open cars. Pres., Henry A. Parr, Baltimore.

WHEELING, W. VA.—The Wheeling & Elm Grove Electric Ry. Co. has petitioned the council to grant it permission to build a double track road. Anton Reymann is interested.

CRESCENT SPRINGS, KY.—The construction of an electric road to connect this place with Big Bone, Burlington, Erlanger and Elsmere is proposed by J. J. Weaver, Civil Engr., Covington, Ky.; J. B. Kolb, Florence, Ky., and John J. Graf, Crescent City. Estimated cost, $100,000.

BUCYRUS, O.—The Buckeye Traction Co. has granted a franchise for an electric road between this place and Galion. Work, it is stated, will be begun at once. Pres., W. E. Haycox.

ATWATER, O.—It is reported that L. O. Kreig, Atwater, is arranging for the construction of an electric road between Canton and Alliance.

CINCINNATI, O.—The Consolidated Ry. Co. proposes to extend its electric road 25 miles to Harrison through Price Hill.——It is reported that the College Hill steam railway company will convert its line into an electric road.

AKRON, O.—The Osborne Engineering Co., Cleveland, O., is making final surveys for the proposed electric road to Brighton, Parma, Royalton, Bath and Fairmount. It is said that the contracts will be let within six weeks. Estimated cost, $700,000.

HAMILTON, O.—The county commissioners have granted the Cincinnati & Miami Valley Traction Co. a franchise for its proposed electric road. Pres., Dennis Dwyer; Secy., A. P. Schwab.

WAYNESBURG, O.—The Stark Electric Ry. Co. has been incorporated with a capital stock of about $100,000.

DETROIT, MICH.—The Detroit Citizen's St. Ry. Co. is reported to have decided to make improvements to its lines at a cost of about $100,000. Gen. Mgr., A. B. Dupont.

DUBUQUE, IA.—The Dubuque St. Ry. Co. has asked for an extension of 75 years to its franchise. The company wants to extend and improve its road. Pres., J. A. Rhomberg.

LEAVENWORTH, KAN.—The People's Electric St. Ry. Co. has been incorporated to build a new railway in this city to cost about $100,000. Amos A. Fenn and E. A. Kelley are interested.

ST. CHARLES, MO.—The Wellston, Creve Couer & St. Charles Ry. Co. has been granted a 50-year franchise for its proposed electric road in this county. J. P. Ellis, Attorney, St. Louis, may be addressed.

SHERMAN, TEX.—C. D. Batsell, Gen. Mgr. Sherman City Ry. Co., is reported as making arrangements for extending the railway.

OAKLAND, CAL.—We are informed that the Oakland Cable R. R. Co. has had under consideration for some time the question of changing the cable road to an electric line. Some surveys have been made with this object in view. Ch. Engr., Byron J. Taylor, San Pablo Ave. power house. R. R. Owens may be addressed for further information.

SANDWICH, ONT.—The council of Sandwich West has granted a franchise to a company which proposes to build an electric road in this district. James Randall, Detroit, Mich., and J. W. Hanna are interested.

BARCELONA, SPAIN.—Press reports state as follows: On June 8 applications will be received at the Spanish Government Office of Public Works (Direccion General de Obras Publicas), at Madrid, for concession for an electric railway to run between Barcelona and vicinity. About $10,000 will have to be deposited by the contractors as a guarantee. French, German, British and American builders will compete.

ELECTRIC LIGHT AND POWER.

EAST HAMPDEN, ME.—Reports state that the Sterns Lumber Co. is contemplating the installation of an electric power plant at their new saw mill here, to furnish power for the Hampden & Winterport Trolley Co. and possibly for the new Penobscot Central R. R. Co.

MALDEN, MASS.—It is stated that the Malden Electric Co. will issue bonds, the proceeds to be used in enlarging its plant.

MILLIS, MASS.—Reports state that the electric light plant is to be combined with the water-works plant, and that new and improved machinery will be purchased. Dr. C. W. Emerson may be addressed.

PITTSFIELD, MASS.—Local papers state that the street railway company is considering the construction of a power house, to cost about $20,000, and to be operated by water power.

TAUNTON, MASS.—This city has purchased the plant of the Taunton Electric Light Co. for $125,000, according to reports.

BUFFALO, N. Y.—Bids are asked until May 18 for installing an electric light plant at the pumping station, foot of Massachusetts Ave. R. G. Parsons, Secy. Bd. Pub. Wks.——The Buffalo General Electric Co. is said to have filed plans, showing the sites proposed for the 74 new ornamental electric light posts, to be erected in Main St.

COLLEGE POINT (L. I.), N. Y.—Reports state that this town will be lighted with electricity, the power to be furnished by the Flushing Electric Light & Power Co., Flushing, N. Y.

DOLGEVILLE, N. Y.—Local papers state that the Stillwell-Bierce & Smith-Vaile Co., Dayton, O., has been awarded the contract for constructing the dam and power-house for the Dolgeville Electric Light & Power Co. It is estimated that about 3,600 HP. will be obtained at a cost of about $75,000. The dam is to be 26 ft. high and 175 ft. wide, and the power house is to be fitted with two 1,500 HP. turbines.

JERSEY CITY, N. J.—Bids are asked until May 14 for wiring First, Second, Third, Fourth and Fifth precinct station houses. G. P. Robinson, Clk. Bd. Police Comrs.

NORTH WALES, PA.—Reports state that the council will grant a franchise to a private company to erect an electric light plant instead of constructing a municipal plant as first proposed.

PHILADELPHIA, PA.—At the meeting of the public building commission May 4 it was decided to install two additional dynamos having a capacity of 3,500 16-c. p. lights each, and to substitute four new 375-HP. horizontal, high-pressure, water-tube boilers for those now in use, at an estimated cost of about $60,000.

LAKE BUTLER, FLA.—We are informed that a vote will soon be taken on the question of issuing bonds for an electric light plant.

MOBILE, ALA.—Bids are asked until June 1, postponement from May 15, for lighting this city for five years with 200 2,000-c. p. arc lights; bond, $10,000, as stated in our advertising columns. Harry T. Inge, Chn. St. Com.

PORT GIBSON, MISS.—At the election held May 3 it was voted to construct an electric light plant and waterworks, according to reports.

GLASGOW, KY.—Reports state that the electric light plant at this place was destroyed May 6, causing a loss of about $15,000; insurance, $10,000.

ALLEGAN, MICH.—Reports state that a steel dam is to be built in the Kalamazoo River near this place, and that a power house will also be erected. Charles H. Frisbee, Jackson, Mich, is said to be interested.

DES MOINES, IA.—An election will be held May 17 to vote on the question of constructing a municipal electric light plant, or of authorizing the McCaskey & Holcomb Co. to erect the necessary apparatus and wires to furnish light to the city and streets. L. Higgins, Cy. Engr.

WASECA, MINN.—Bids are asked by the county commissioners until May 20 for furnishing and placing electric light fixtures in the new court house. A. J. Lohren, Clk. County Comrs.

MELLEN, WIS.—Bids are asked by the Melen Water & Light Co. until May 15 for constructing a water and electric light plant, including the furnishing and laying of about 4,-300 ft. of 2 to 6-in. pipe with valves and fittings, force pump, six hydrants, water wheel for operating pump and dynamo and complete electric light plant with a capacity of 350 16-c. p. incandescent lights. Rettinghouse & Pitts Co., Engrs., Ashland and Manitowac, Wis.

SALINA, KAN.—L. Henderson was awarded, at $1,950, the contract for building the new power-house for the People's Light, Heat & Power Co. The following bids were also received: J. Daum & Son, $2,325; C. D. Crawford, $2,121; J. Valien, $1,950, and I. P. Dillon, $1,950.

GEORGETOWN, TEX.—Reports state that the McElroy-Brett Electric Co., just organized, will immediately install an electric light plant.

PROVO CITY, UTAH.—Reports state that L. L. Nunn has filed a notice with the County Recorder, signifying his intention to construct a dam at Hanging Rock, to be about 85 ft. high, and which is expected to furnish about 10,000 HP.

OWEN SOUND, ONT.—Bids are asked until May 25, postponement from May 10, for lighting the streets of this town for five or ten years. John Weldrick, Chn. Fire and Light Com.

NEW COMPANIES.—Crystal Lake Irrigation & Power Co., Glendora, Cal.; $250,000, with $170,000 paid in; R. W. Dawson, J. M. Baker, H. G. Baker, H. K. Miller, M. M. Dougherty.

Standard Automatic Lighting Co., Chicago, Ill.; $100,-000; to construct lighting systems; C. W. Harper, L. Drake, L. M. Williams.

Seacoast Electric Light & Power Co., Woodbury, N. J.; $100,000, with $25,000 paid in; to manufacture electricity for light, heat and power purposes; manufacture ice, own and operate an electric railroad, erect poles, buildings, bridges, etc. Richard T. Eschler and C. F. Weygand, of Camden, N. J.; W. R. Cillis, Philadelphia.

National Electric Light & Battery Co., Providence, R. I.; $500,000, with $480,000 paid in; to manufacture and sell electrical batteries, etc. J. Edward Allen, A. B. Gardner, C. J. Allen, of Providence; E. B. Crocker, and E. L. Slocum, of Pawtucket, R. I.

American Lighting & Glass Co., Charleston, W. Va.; $200,000, with $100 paid in; to manufacture gas and electric fixtures, etc. Chas. H. De Voll, J. H. Hunt, Edward Oppenheimer, of New York, N. Y.

Manufacturers' & Inventors' Electric Co., New York, N. Y.; $5,000; to deal in electrical apparatus and supplies. Thomas J. Smith, Roselle, N. J.; Edward J. Curtis, 27 St. Mark's Place, Brooklyn, N. Y.

American Thermo-Electric Co., Yonkers, N. Y.; $500,-000, with $50 paid in; to manufacture and purchase machinery for generating and utilizing electricity. O. J. Smith, Henry P. Booth, A. R. Sheffer, New York, N. Y.; Waldo G. Morse, Brooklyn, and A. M. Pelletreau, Brooklyn.

BRIDGES.

ALBANY, N. Y.—The board of aldermen is reported to have passed a resolution directing Horace Andrews, Cy. Engr., to prepare plans and specifications for the proposed Knox St. viaduct, for which an appropriation of $50,000 was made.

NYACK, N. Y.—Reports state that a bridge is to be built over the brook on Highland Ave., to cost about $800. Frank Comesky, Village Attorney, may be addressed.

WATERTOWN, N. Y.—The following bids were received on May 7 for a bridge over Black River at Mill St., as advertised in Engineering News:

Stone Arch.	
Andrew Shannon, Watertown, N. Y.	$43,000
Keepers & Thacher, Detroit, Mich.	35,000
Melan Arch.	
Keepers & Thacher, Detroit, Mich.	30,000
Steel Arch.	
King Bridge Co., New York, N. Y.	16,893
Groton Bridge & Mfg. Co., Groton, N. Y.	17,499
Hilton Bridge Co., Albany, N. Y. .....$19,350 and	19,950
Berlin Iron Bridge Co., East Berlin, Conn.	18,281
Owego Bridge Co., Owego, N. Y. .....$20,000 and	24,700
Wrought Iron Bridge Co., Canton, O.	20,900
Suspension Bridge.	
John A. Roebling & Sons Co., New York, N. Y.	36,000

PORT PERRY, PA.—Local papers state that the contract for constructing the new union railway bridge, which will cross the river at this place, and will connect the steel interest of the Carnegie Steel Co., is to be let in a few days. Seven bids are said to have been received. The bridge is estimated to cost about $400,000, and is to be about 1,350 ft. long.

BALTIMORE, MD.—Reports state that Mayor Hooper has signed the ordinance appropriating $34,000 for constructing a new bridge over Gwynn's Falls, at Wilkens Ave. Wm. A. Hanway, Cy. Comr.

CLEVELAND, O.—Reports state that the King Bridge Co., Cleveland, at $4,800, was the lowest bidder for constructing a new bridge at Gordon Park. C. W. Pratt, Jr., Ch. Engr. Parks.

ROCKPORT, IND.—Bids are asked until May 18 for constructing three steel bridges in Ohio Township, two 30-ft. span and one 24-ft. span. John D. Remstidt, County Audr.

CHICAGO, ILL.—A petition is being circulated, according to reports, for a bridge and viaduct at Robey St. L. E. McGann, Comr. Pub. Wks.

WAUPACA, WIS.—Bids are asked until May 19 for constructing a 34-ft. iron bridge with a 16-ft. roadway and stone substructure. M. T. Allen, Waupaca; John Moore, Ogdensburg, Wis.

JASPER, MINN.—Bids are asked until May 15 for constructing a 28-ft. wooden bridge with an 18-ft. roadway. G. W. Vickerman, Town Clk.

MANKATO, MINN.—The county commissioners have decided to build a new iron bridge over the Maple River at the site of the Taylor bridge, according to reports. M. B. Haynes, Cy. Engr. Commissioners, Robert, Hannay and Borchert.

MINNEWAUKON, N. DAK.—Bids are asked until May 24 for constructing a 32-ft. and a 60-ft. wooden bridge at this place. D. J. Drummond, Audr.

KEYTESVILLE, MO.—Our correspondent informs us that Farnsworth & Blodgett, of Kansas City, Mo., have been awarded, at $1,075, the contract for constructing a 60-ft. iron bridge on tubes.

HAYDEN, COLO.—About 90 ft. of the bridge over the Bear River at this place is said to have been carried away by an ice gorge.

WAYNE, NEB.—Bids are asked by the county commissioners until June 1 for repairing the county bridges for the year ending June 1, 1898, the county to furnish all material, contractor to do all the work, including the driving of the piling, painting the railing and hauling the material. Bids may also cover any new bridge or bridges which the board may see fit to have built without advertising further. Bond $500. S. B. Russell, County Clk.

MORO, ORE.—Bids are asked until May 15 for constructing a bridge across Grass Valley at Lone Rock. Wm. Henricks, Clk. County Court.

OAKLAND, CAL.—Reports state that bids for plans for the proposed bridge over the estuary will soon be asked. Supervisor Roeth may be addressed.

MONTREAL, QUE.—Local papers state that the contract for reconstructing the Victoria bridge at this city has been awarded jointly to the Dominion Bridge Co., of Montreal, and the Detroit Bridge & Iron Co., of Detroit, Mich. It involves about $1,500,000.

BUILDINGS.

BURLINGTON, VT.—The school commissioners of this city have recommended to the council the purchase of a site at College and William Sts., and the erection thereon of a building to cost about $75,000.

CHELSEA, MASS.—An appropriation of $50,000 has recently been made for the erection of a new police station in this place. The location of the same is in the hands of the board of aldermen.

SALISBURY BEACH, MASS.—Bids are asked until May 27 for constructing a life saving station at this place. Address the superintendent second life saving district, East Oleans, Mass., or S. I. Kimball, Gen. Supt., U. S. Life Saving Service, Washington, D. C.

BROOKLYN, N. Y.—The work of tearing down the old St. John's Episcopal Church building at Fort Hamilton has been commenced, preparatory to erecting in its stead a new stone edifice. Archs., Smith & Cromwell, 123 East 23d St., New York.——The following bids for building an engine house on Rogers Ave., near Ave. F, were received by Wm. C. Bryant, Comr. Dept. of Fire, May 5: Theodore McKane, $19,995; Thos. S. Carlin, $20,762; Leonard Bros., $20,983; A. P. Blixt, $21,200; F. J. Kelly & Son, $21,397; Kenny & Henningham, $21,496; J. D. Anderson's Sons, $21,692; Peter Gardner, $21,700; K. A. Murphy, $23,598; Mapes, Reeve Construction Co., $25,680.

BUFFALO, N. Y.—Bids are asked until May 19 for installing a new system of heating and ventilation in school building No. 37. R. G. Parsons, Secy. Bd. Pub. Wks.——The Music Hall will soon be remodelled, and additional boxes, galleries, etc., added. Arch., A. C. Esenwein, 707 Mooney Bldg., Buffalo.

COLLEGE POINT (L. I.), N. Y.—The proposition to bond the village for $50,000 for erecting a new school building was passed on May 6. Mr. Peck is school commissioner.

EAST VIEW, N. Y.—Reports state that the new penitentiary which is to be erected under the supervision of the board of supervisors of Westchester county, at a cost of about $175,000, will probably be located at this place, five miles from Peekskill.

GENEVA, N. Y.—The erection of a sanitarium in this place, to cost about $150,000, is contemplated. Leonard Moody, James McMahon and Paul de Frece, New York, are interested.

GOWANDA, N. Y.—O. K. Parker, C. E., Gowanda, informs us that C. K. Porter, 43 American Block, Buffalo, N. Y., is preparing plans for an extension to the Union school building, to cost about $10,000.

JAMESTOWN, N. Y.—Reports state that James Mecusker & Son have purchased property on Cherry St., and propose to erect a large business block thereon during the summer.

NEW YORK, N. Y.—Bids are asked until May 19 by the commissioners of the fire department, 157 and 159 East 67th St., for furnishing the materials and labor required in altering and placing a steam freight elevator in the building of the department occupied as the repair shops, at 130 and 132 West 3d St.; and for repairing the building of the department occupied as quarters of engine company No. 19, at 355 West 25th St.——Plans are being prepared for James Livingston, 8 West 91st St., for a 7-story apartment house to be erected on West 86th St., to cost about $150,000. Archs., Neville & Bagge, 217 West 125th St.——Plans are being prepared for seven 4-story dwellings on 137th St., near 7th Ave., for Chas. E. Picken, 56 West 113th St.; estimated cost, $115,000. Arch., John Hauser, 1441 3d Ave.——A 5-story brick and stone flat building is to be erected for Smith & Roffler, 130 East 86th St., at Manhattan Ave. and 106th St., to cost $120,-000. Archs., Neville & Bagge, 217 West 125th St.——Five 5-story brownstone flat and store buildings will be erected for August Jacob, 527 West 149th St., at 58th St. and 10th Ave., to cost about $150,000. Arch., John Hauser, 1441 3d Ave.——Four 5-story flat buildings will be erected for William Ueckermann, 14 West 113th St., on 137th St., near Lenox Ave., to cost about $100,000.——Plans have been filed by Henry Rothchild, 82 East 81st St., for four 5-story brick flat and store buildings at Lenox Ave. and 117th St., to cost $101,000; also for four 5-story brick flat and store buildings at Lenox Ave. and 118th St., to cost $101,000. Arch., George F. Pelham, 503 5th Ave.; by George A. Saward, Hill View, Yonkers, N. Y., for an 8-story brick business building at 155 and 157 Wooster St., to cost about $117,000. Arch., George F. Pelham, 503 5th Ave.; by John Weber, 1121 Madison Ave., for a 7-story brick flat at Madison Ave. and 83d St., to cost $50,000. Archs., Schickel & Ditmars, 111 5th Ave.; by the department of public parks for a 6-story brick museum, 8th Ave. and 77th St., to cost about $500,000. Archs., Cady, Berg & See, 31 East 17th St.; by Simon Haberman, 919 7th Ave., for seven 5-story brick flat buildings on 116th St., near 7th Ave., to cost about $140,000. Arch., G. A. Schellenger, 128 Broadway; by Isaac Mayer, 69 East 107th St., for four 5-story brick flat and store buildings at Madison Ave. and 100th St., to cost about $97,000. Arch., John Hauser, 1441 3d Ave.; by Sauer, Gross & Harvener, 1205 Park Ave., for eight 5-story brick flat and store buildings at 8th Ave. and 133d St., to cost $190,000. Archs., Neville & Bagge, 217 West 125th St.; by Hugo F. Hoefler, 558 West 142d St., for three 5-story brick flats on 154th St., near 8th Ave., to cost $67,500. Arch., John C. Burne, 101 West 42d St.

NEW YORK, N. Y.—Bids are asked by the board of education, 585 Broadway, for erecting a high school building on Hester St. until May 17.——The following bids were received May 10th by the board of education for constructing an annex and making improvements to grammar school No. 93:

Thos. Cockerill & Son, 580 West 41st St.	$94,500
Luke A. Burke, 143 Liberty St.	95,777
John H. Deeves, United Charities Bldg.	98,350
Thos. Dwyer, Temple Court	99,464
Tolmie & Luyster, 245 West 12th St.	105,885
Hartman & Horgan, 253 East 68th St.	115,000

SEA CLIFF (L. I.), N. Y.—On May 15 a special school meeting will be held in this district to authorize the board of education to levy a tax, not exceeding $25,000, for the purpose of erecting a new school building.

WHITESTONE (L. I.), N. Y.—An election is to be held in this place on May 25 to consider the advisibility of appropriating $26,000 towards additional school facilities. Arch., William Higginson.

JERSEY CITY, N. J.—Bids are asked until May 17 by the board of street and water commissioners for furnishing all the labor and material necessary to rebuild public school building No. 1 on York St.; also for taking down and removing the old school building and the adjoining buildings. Clk., Geo. T. Bouton; address Anthony Hauck, Chn. Com. on Pub. Buildings.

NEWARK, N. J.—Bids are asked until May 26 for the purchase of $300,000 of 4% 30-year school bonds. Comptroller, John S. Gibson, City Hall.

PATERSON, N. J.—The following bids were opened in this city May 10 for building the new Passaic County Court House:

James Stewart & Co., St. Louis, Mo.	$276,000
Herman Probst, New York	293,918
Marble & Spencer, Chicago, Ill.	299,000
L. L. Leach & Son, Chicago, Ill.	309,875
E. M. Hooper, Trenton, N. J.	317,467
Wm. H. Jenkins & Co., Philadelphia	324,978
Mapes-Reeve Construction Co., New York	328,746
Peter Vanderhoof's Son & Co., Newark, N. J.	330,735
Jno. W. Ferguson, Paterson, N. J.	332,000
Thos. Dwyer, New York	335,567
Hopkins & Roberts, New York	337,760
Chas. Hart, Brooklyn	338,338
Wm. H. H. Van Houten, Paterson, N.J.	360,000
Woodberry & Leighton, Boston, Mass.	380,000

PENNINGTON, N. J.—Plans have been prepared for a new dormitory to be erected for the Pennington Seminary, at a cost of $50,000. Arch., J. Cather Newsom, 1001 Chestnut St., Philadelphia, Pa.

ALLEGHENY, PA.—Bids will soon be asked for erecting a brick and stone church building at North and Grant Avs., for the Ninth United Presbyterian Church; estimated cost, $20,000; J. R. J. Milligan, Pastor.

BRADFORD, PA.—The following bids were received May 3 for constructing a municipal building in this city:

Tuna Mfg. Co., Bradford	$30,450
B. U. Taylor, Olean, N. Y.	30,300
Geo. W. Carter Sons & Co., Buffalo, N. Y.	33,975
Stokes Bros., Buffalo, N. Y.	30,150
W. W. Hathaway, Bradford	32,869
Zack Hill, Bradford	31,000
Wm. Hauley, Bradford	26,145

CHESTER, PA.—The late Lewis Crozer, Upland, Pa., has left two bequests which provide for the establishing of a free library, at a cost of $250,000, and of a homeopathic hospital, to cost $500,000.

HARRISBURG, PA.—Plans have been asked until July 24 from six architects, who are to compete in designing the new group of buildings, chief among which is the new legislative building. M. Hayward, Treas. State Capitol Com.

ISABELLA, PA.—Reports state that William M. Potts, proprietor of Isabella Furnace, contemplates the erection of a stable near this place which will cost $60,000.

JOHNSTOWN, PA.—Plans are being prepared for a new 2-story brick and stone high school building, to cost about $80,000. Arch., George Wild.

LANCASTER, PA.—It is stated that plans are being prepared for a stone college building for the Franklin and Marshall University at this place, to cost $45,000. Arch., A. F. Smith, 27 North 6th St., Reading, Pa.

PHILADELPHIA, PA.—A new apartment house (the Parkside) is soon to be erected at Parkside Ave. and 40th St., to cost about $90,000. Arch., Angus S. Wade, 715-718 Hale Bldg., 1326 Chestnut St., Philadelphia, Pa.——A 16-story brick and stone office building is to be erected at Broad and Chestnut Sts. for the Real Estate Trust Co. and H. G. Freeman, Jr., to cost about $1,250,-000.

PITTSBURG, PA.—A 9-story Y. M. C. A. building is projected for this city, to cost about $250,000. Arch., Miss Elise Mercur, 50 9th St.——A 10-story business building will soon be erected for Frank Nicola on the site of the Dalzell homestead, Penn Ave. and 4th St., to cost about $150,000.——The contract for the erection of the 18th Ward school building at Jancey and Greenwood Aves. has been let to Mark Lyndon at $25,300.

SCRANTON, PA.—The members of the 13th regiment in this city contemplate the erection of a new armory on the property now owned by the Home for the Friendless on Adams St., to cost $75,000.

WILLIAMSPORT, PA.—Plans have been prepared for a new stone church building to be erected in this city for the Covonant Presbyterian Church, to cost about $50,000. Archs., Stearns & Castor, 637 to 639 Philadelphia Bourse, Philadelphia, Pa.

WOMELSDORF, PA.—Bids are being asked for the construction of a new brick and stone city hall and engine house, to cost $25,000. Arch., William Fink, 426 Franklin St., Reading, Pa.

YORK, PA.—Reports state that the erection of the new high school building in this place, which is to cost about $100,000, will soon be commenced. Arch., B. F. Willis, Ebert Bldg.

WILMINGTON, DEL.—Bids are asked until May 13 for erecting a 4-story brick and stone business building for the Delaware & Atlantic Telegraph & Telephone Co. at 6th and Shipley Sts. Arch., Edward L. Rice, Jr., Equitable Bldg.

WASHINGTON, D. C.—Plans have been accepted for the new building which is to be erected by the Hearst School for Girls at Woodley Road and Connecticut Ave.,

to cost about $175,000. Arch., Robert W. Gibson, 18 Wall St., New York, N. Y.—The following bids were received by the district commissioners May 1 for installing a hot-blast steam heating and ventilating plant in the Western high school building in this city:

Philadelphia Steam Heating Co., Philadelphia	$11,993
Crook, Horner & Co., Baltimore, Md	12,451
W. D. Seltzer, Washington	13,976
B. F. Sturtevant Co., Philadelphia	13,588

WASHINGTON, D. C.—Bids are asked until May 27 for constructing life-saving stations at four points on the Virginia and North Carolina coast, as stated in our advertising columns. S. I. Kimball, Gen. Supt., U. S. Life-Saving Service, Washington, D. C.

ASHEVILLE, N. C.—The erection of a sanitarium at this place by the Catholic Church is being considered. Address Bishop Leo Haid, Belmont, N. C.

RALEIGH, N. C.—Secretary of State Thompson desires bids for painting the roofs and dome of the state capitol, agricultural department and other state buildings at Raleigh.

ANDERSON, S. C.—Bids are asked until July 1 for constructing a court house and jail at this place. W. P. Snelgrove, Chn. Bldg. Com.

CLEVELAND, O.—Reports state that A. A. Pope will soon erect a 5-story building on Seneca St., near Fountain St., at a cost of $35,000.

CLEVELAND, O.—It is reported that a union station for all the street railways of this city will probably be built on Ontario St. Myron T. Herrick is interested.——A new brick and stone school building will be erected on Fullerton St., near Tod St., to cost about $34,000. Arch., F. S. Barnum.

TERRE HAUTE, IND.—The Terre Haute House Co. is projecting the constructing of a new theatre in this city, to cost about $85,000.

CHICAGO, ILL.—Plans are being prepared for remodeling the 6-story Sherman House at Clark and Randolph Sts., at a cost of $50,000. Archs., W. W. Boyington & Co., 161 La Salle St.

STERLING, ILL.—Plans are asked by the board of trustees for a new high school building to cost about $28,000, which sum was recently appropriated at a special election. Address E. Brown or J. W. Alexander.

MADISON, WIS.—Bids are asked until June 1 for erecting the historical library building. Archs., Ferry & Clas, Milwaukee.

WHITEWATER, WIS.—Bids are asked until May 19 by the board of normal school regents for furnishing labor and materials required in constructing the proposed addition and completing the alterations at the state normal school building at this place. Pres., E. D. Coe.; Archs., A. C. Koch & Co., Pabst Bldg., Milwaukee, Wis.

CASTLE GROVE, IA.—Bids are asked until June 12 by the school board for erecting a school building in district No. 6 of this township.

DAVENPORT, IA.—Bids are asked until May 17 for erecting a new county jail in this place. Address J. G. Dutcher or E. J. Dougherty; Archs., Clausen, Hubbell & Burrows, 205 West 3d St.

ELWOOD, IA.—It is expected that a new school building, to cost $30,000, will soon be erected at this place.

ALEXANDRIA, MINN.—The following bids were received on May 3 by the board of education for erecting a school building. Secy., Geo. G. S. Campbell; Treas., George S. Spaulding:

O. H. Olson, Stillwater Minn.	$14,396
B. Cooper, Minneapolis, Minn	14,250
Chas. Skooglum, St. Paul, Minn	13,387
R. McMillan & Co., Minneapolis, Minn.	13,527
A. Wallentine, St. Paul, Minn	13,413
H. Downs & Son, Minneapolis, Minn.	13,359
Donlin & Cullen, West Superior, Wis	13,400
C. E. Scales, West Superior, Wis	12,997
Hinckley & Powers, Alexandria	12,495
Charles Peterson, Minneapolis, Minn	12,960
Geo. W. Brown & Co., Minneapolis, Minn	11,990

MINNEAPOLIS, MINN.—A fire in this city recently destroyed the building of the Itasca Warehouse Co., causing a loss, including stock, of $250,000, according to reports.

NORFOLK, NEB.—Plans and specifications are asked until May 14 for erecting an addition to the Norfolk hospital for the insane, to cost not more than $30,000. J. V. Wolfe, Comr. Pub. Lands and Bldgs., Lincoln, Neb.

DEADWOOD, S. DAK.—Reports state that plans have been made for J. T. Gilmore for a 5-story brick and stone hotel to be erected in this city. Arch., Mart Alber.

DALLAS, TEX.—Bids are asked until May 24 for erecting a 2-story brick and stone passenger station in this city. Address C. F. W. Felt, Ch. Engr., Gulf, Colorado & Santa Fe Ry., Galveston, Tex.

NEVADA CITY, CAL.—Reports state that a new armory and theatre building, to cost about $15,000, will probably be erected in this city on the site of the present hall.

PHOENIX, ARIZ.—At an election recently held in this place it was decided to issue $30,000 in twenty-year bonds for erecting a new high school building.

TORONTO, ONT.—Bids are asked until May 15 for furnishing the labor and material necessary to erect a 4-story and office building, at Yonge and Temperance Sts., for W. & D. Dineen. Arch., F. H. Herbert, 9 Toronto St.

CHARLOTTETOWN, P. E. I.—Bids are asked until June 4 for constructing the proposed Prince of Wales College and normal school building. Jas. R. MacLean, Comr. Pub. Wks.; Arch., C. R. Chappell.

WATER-WORKS.

BANGOR, ME.—The water board has awarded the contract for the new 1,700,000-gallon stand-pipe to the New Jersey Steel & Iron Co., whose bid, at $20,500, was received last August. H. L. Jones, Engr., N. J. Steel & Iron Co., Trenton, N. J.

WOODSTOCK, N. H.—We are informed that this town voted May 8 to accept the proposition made to it by the North Woodstock Water Co. The works will be erected in North Woodstock. The meeting was addressed by Alvin Burleigh, of Plymouth, and Arthur W. Dudley, C. E., of Dudley & Doherty, 936 Elm St., Manchester, N. H. A committee of three was appointed to act for the town in the construction. W. L. E. Hunt, Secy., North Woodstock, or Dudley & Doherty, Manchester, may be addressed.

BOSTON, MASS.—We are informed that the Metropolitan water board on May 4 awarded to the A. W. Bryne Construction Co., West Medford, Mass., the contract of $23,815 for laying water pipes in section 13 of the water-works, as advertised in Engineering News. The itemized bids will probably be given next week.

NANTUCKET, MASS.—W. F. Codd, Supt., writes us that the question of constructing mains and a stand-pipe is simply being discussed.

NORTHFIELD, MASS.—We are informed that a gravity system with a 300,000-gallon storage reservoir, is under contemplation for this place. Address Frank Simpson; Engrs., Clapp & Abercrombie.

TIVERTON, R. I.—Geo. H. Norman writes us that legislation is now pending in regard to the Tiverton Water-Works Co. Probably nothing will be done this year.

SOUTH GLASTONBURY, CONN.—Wm. E. Johnston, Ch. Engr. Hartford Water-Works Co., Hartford, is reported to have been directed to prepare plans and specifications for the proposed new works; estimated cost, $7,000.

BINGHAMTON, N. Y.—Plans are about complete for constructing a 30-in. cast-iron pipe from the works to the proposed new intake. Supt., Darwin Felter.

BUFFALO, N. Y.—The following bids were received by the board of public works May 6 for completing the tunnel from the pumping station to the inlet pier, about 125 ft., as advertised in Engineering News: Sooysmith & Co., Mills Bldg., New York, $7,500, for finishing work, including a number of conditions; Haskins & Murphy, Boston, $50,000, with bond; $43,000, without bond; for doing the work if city furnishes steam, the National Contracting Co., $38,000, awarded contract. It is to receive $5,000 additional if it is found necessary to use compressed air. Address Gen. Geo. S. Field, 452 Delaware Ave., Buffalo.

CHATHAM, N. Y.—Louis L. Tribus, 84 Warren St., New York, has been retained as consulting and chief engineer for the design and construction of water-works at this place.

COEYMANS, N. Y.—We are informed that the town board on May 10 granted a franchise for a water supply for Ravena to J. Warren Lamb, of Cooperstown, N. Y.

FLUSHING (L. I.), N. Y.—The village trustees will soon ask for bids for constructing a stand-pipe, etc. Supt., G. A. Rouller.

COLLEGE POINT (L. I.), N. Y.—An election will be held May 24 to vote on the question of constructing a water tower, to cost about $20,000.

GOWANDA, N. Y.—O. K. Parker, Gowanda, has made surveys and prepared plans for an extension to the works. The construction will be begun soon; estimated cost, $10,000.——Mr. Parker has also prepared plans, etc., for a water system for the Gowanda Pine Hill Cemetery. The construction will be pushed as soon as the necessary steps in condemning the land are completed.

PORT LEYDEN, N. Y.—It is reported that plans and specifications have been prepared for new works for this place. The water will be secured from a spring 2½ miles from the village; estimated cost, $20,000. Works for domestic supply were built in 1895 by John McHale.

ROCHESTER, N. Y.—Emil Kuichling, Ch. Engr. water-works, has submitted a report recommending the construction of a new reservoir for an increased water supply.

SYRACUSE, N. Y.—Bids are asked until May 21 for furnishing and delivering on cars at Syracuse, 1,360 tons of 4 to 16-in. cast-iron water pipe and about 80,000 lbs. of special castings; bond, $2,000, as stated in our advertising columns. W. R. Hill, Ch. Engr. and Supt. Water Bd.

SPRING LAKE, N. J.—W. W. Trout, Pres. Springlake Supply Co., writes us that as the council has refused to grant the company permission to construct pipes in the streets, nothing will be done at present. Capital stock, $10,000.

WOODBRIDGE, N. J.—H. L. Dudley, Pres. Middlesex Water Co., 27 William St., New York, writes us that the company is not yet ready to give information in regard to the proposed water-works.

HARRISBURG, PA.—The assignees of the Middletown Water Co. will offer for sale on June 8 the franchise owned by the company. Benj. M. Nead, J. F. Raymond and J. W. Rewalt may be addressed.

NEW CASTLE, PA.—The West New Castle & Mahoningtown Water Co. is preparing to build a plant in opposition to the New Castle Water Co. and will erect a pumping station and a stand-pipe and reservoir in each borough.

WESTCHESTER, PA.—Local papers state that new plans will be prepared for constructing the new pumping station, and that new bids will be asked for the work. The bids received May 5 were returned unopened. There will be required about 13,000 ft. of 14-in. pipe, a 2,000,000-gallon pump, etc., as noted in our issue of last week. Des. Engr., W. W. Lindsay, 238 Chestnut St., Philadelphia.

WEST CHESTER, PA.—Bids are asked until May 24 for extending the works, as described in our advertising columns. W. S. Underwood, Borough Treas.; Engr., W. W. Lindsay, Philadelphia, Pa.

YORK, PA.—The York Water Co. is now receiving the water from its new source of supply, by putting into operation the recently completed pumping station upon the South Branch of the Cordorus Creek. The new reservoirs are yet uncompleted, but by using a short circuit pipe the supply is passed around the reservoir site and so to the city. Ch. Engr., Chas. A. Hague, 39 Cortlandt St., New York.

ELLICOTT CITY, MD.—The city authorities have refused to grant a franchise to James H. Gaither for putting in water-works. There is some talk of constructing municipal works. Mayor Werner and Councilmen H. D. Dunkel, M. F. Burke and Geo. W. Carr may be addressed.

SMITHFIELD, VA.—The construction of works is being considered, the result of a recent fire, according to reports.

JACKSONVILLE, FLA.—R. N. Ellis, Supt. water-works, has recommended the purchase of 100 meters.

LAKE BUTLER, FLA.—We are informed that no steps have been taken toward the construction of water-works.

PUTNAM, FLA.—A bill has been introduced in the legislature to grant this city authority to issue bonds for works.

GREENWOOD, MISS.—C. E. Wright informs us that there is under consideration the question of putting in works.

PORT GIBSON, MISS.—At the election held May 3 it was voted to construct works and an electric light plant. This election was necessary, as the former procedings by which contracts were let for constructing works were illegal. F. C. Englesing, Cy. Engr.

NATCHITOCHES, LA.—Bids are asked until June 14 for constructing works; estimated cost, about $17,000. Engr., J. A. Holmboe, Louisville, Ky.; J. C. Nichel, Jr., Cy. Secy.

CHATTANOOGA, TENN.—The City Water Co. proposes to extend its mains to Cameron Hill. Supt., C. D. Barstow.

COVINGTON, TENN.—The construction of works at this place is proposed by a company now being organized. It is stated that bids will be received at once.

GLASGOW, KY.—The electric light plant and water-works were destroyed by an incendiary fire May 6, entailing a loss of $40,000; insurance, $20,000. T. P. Dickinson, Secy.

CANTON, O.—The report of L. E. Chapin, Cy. Engr., appointed to look into the feasibility of a new water-works system was handed to the board of water-works trustees at its meeting on May 4. The report recommends the remodeling and rebuilding of the entire water-works. It contemplates the erection of a pumping station at North Canton, the relaying and enlarging of the mains and a station with a large pumping capacity. The estimated cost would be about $160,000.

COLUMBUS, O.—The question of securing a better water supply for the Ohio penitentiary is being considered by the state board of managers.

CUYAHOGA FALLS, O.—The council has voted to submit the question of issuing $70,000 in bonds for works to a vote of the people on May 29.

TOLEDO, O.—L. A. Cass, Pres. Toledo Commercial Co., writes us that the city is considering the subject of filtering beds.

TOLEDO, O.—Pipe extensions of 4,550 ft. of 6-in. and 1,400 ft. of 8-in. pipe have been approved on seven streets by the water-works trustees. Wm. Jones, Prest.; T. R. Cook, Supt.

WEST ALEXANDRIA, O.—Bids are asked until June 1 for the purchase of $16,000 of 5% water bonds. W. H. Brubaker, Clk., writes us that works are proposed by the city. Des. Engrs., Sanders & Porter, Louisville, Ky.

ROYAL CENTER, IND.—An election was held at this place recently to vote on the question of building works to cost about $8,000. A report last year stated that the contract had been let to Stevens & Bedwards, Logansport, Ind. Engr., Harry Coleman, Logansport.

MICHIGAN CITY, IND.—Plans, specifications and bids are asked until June 2 for the improvement of the water-works at the Indiana state prison at this place, consisting of an intake system to extend about 2,000 ft. into Lake Michigan, as stated in our advertising columns. Charles Harley, Warden.

DETROIT, MICH.—G. S. Williams, Engr. Bd. Water Comrs., writes us that the board is only making preliminary surveys to determine currents and most desirable location for an intake crib in the Detroit River. The object being to avoid the shore wash in the spring of the year, and contaminations from various sources. No construction will be attempted this year, as it is proposed to continue the observations through the winter.

BELLEVILLE, ILL.—Henry Leschen, St. Louis, Mo., writes us that the contract for constructing the proposed works at this place has been awarded to John P. Martin, Belleville, Ill., and Xenia, O.

CHICAGO, ILL.—Bids are asked until May 17 for furnishing and laying water pipe in three streets. L. E. McGann, Comr. Pub. Wks.

GREENUP, ILL.—C. & T. Igelhart, 161 La Salle St., Chicago, Ill., have been awarded the contract for constructing works, as advertised in Engineering News. Waltz & Ward who were at first awarded the contract did not commence work. Engr., D. W. Mead, Brown Bldg., Rockford, Ill.

MELLEN, WIS.—Bids are asked until May 15 for constructing water-works and an electric light plant. The work will include about 4,300 ft. of 2 to 6-in. pipe, etc. Engrs., Rettinghouse & Pitz Co., Ashland and Manitowoc.

NORTHWOOD, IA.—Bids are asked until May 13 for sinking an 8-in. well with a daily capacity of 500,000 gallons. Bert Hamilton, Mayor.

SHELL ROCK, IA.—H. W. McGregor, Recdr., writes us that a petition asking that an election be held to vote on the question of constructing works has been presented to the council. No action has yet been taken on the matter; population, 1,000.

ST. PAUL, MINN.—The following bids were received May 3 for furnishing and constructing a 10,000,000-gallon pump at the McCarron Lake station.

Snow Steam Pump Works, Buffalo, N. Y.	$43,920
Groshon High Duty Pump Co., New York	32,500
Holly Mfg. Co., Lockport, N. Y.	32,950
Barr Pumping Engine Co., Philadelphia, Pa.	34,720
Nordberg Co., Milwaukee, Wis.	31,529
Manistee Iron Works Co., Manistee, Mich.	37,000
E. P. Allis Co., Milwaukee, Wis. (accepted)	32,700
A. J. L. Loretz, New York	30,300
H. R. Worthington, New York	39,000
Geo. F. Blake Mfg. Co., New York	31,500 and 46,000
Laidlaw-Dunn-Gordon Co., Cincinnati, O.	34,982

DODGE CITY, KAN.—The Dodge City Water & Light Co. has been incorporated with a capital stock of $50,000, all paid in; incorporators: Geo. N. Meyers, Kansas City, Mo.; John Moore, St. Louis, Mo.; Geo. G. Gilbert, Dodge City, and others.

FORT SCOTT, KAN.—It has been decided to postpone the sale of the plant, etc., of the Fort Scott Water-Works Co. from May 4 to May 31. S. P. Mosher, Special Master, Fort Scott, or Rossington, Smith & Dallos, Topeka, Kan., may be addressed.

OMAHA, NEB.—L. G. Nebergall has been awarded the contract for sinking a well 1,000 ft. deep for the water supply of the exposition grounds.

MISSION HILL, S. DAK.—Bids are asked until May 15 for sinking a 6-in. artesian well, etc., according to reports. M. M. Van Osdell, Secy.

GALENA, MO.—The construction of works and an electric light plant in Empire, a town near this place, is being considered by the people of that town, according to reports.

DENVER, COLO.—The Denver Union Water Co. is reported as considering the question of introducing water meters.

PUEBLO, COLO.—The stockholders have voted to construct a water-works for the Riverview Cemetery. There will be required about 3,100 ft. of 6-in. pipe and 12,560 ft. of smaller pipe. Supt., L. C. Glazier.

MARSHFIELD, ORE.—H. Orchard is reported to have submitted a proposition to the town board to put in works. A reservoir of 25,000,000 gallons will be built, if permission is granted.

SAN PEDRO, CAL.—Bids are asked by the city clerk until May 11 for constructing a 16-ft. aermotor windmill, a 10,000-gallon water tank, piping, etc.

RANDSBURG, CAL.—The construction of new works by a company recently incorporated with a capital stock of $500,000 will soon be begun, according to reports. T. H. Owens is interested.

PICTOU, N. S.—The construction of works is still being investigated. Estimated cost, about $60,000. F. Mackaracker may be addressed.

TORONTO, ONT.—Adolph Davis, late Supt. Montreal Water-Works, is reported as about to submit plans for a water tunnel to the lake.

IRRIGATION.

FORT COLLINS, COLO.—Reports state that the National Land & Irrigation Co. has bought the old Judge Hawes ranch, which is about two miles below this city, and contains 500 acres of land. Control is thereby secured of the Pioneer ditch, the water from which will be transferred to the North Fork ditch and used upon the new lands owned by that company.

DENVER, COLO.—Capt. H. M. Chittenden, Denver, who was directed by the government to select sites for two reservoirs in Colorado and two in Wyoming, is making the preliminary surveys for the reservoirs.

MODESTO, CAL.—Bids are asked by the board of directors until June 1 for the purchase of $200,000 of irrigation bonds.

NEW COMPANIES.—Crystal Lake Irrigation & Power Co., Glendora, Cal.; $250,000, with $170,000 paid in; R. W. Dawson, J. M. Baker, H. G. Baker, H. K. Miller and M. M. Dougherty, Glendora.

People's Irrigation Co., Prineville, Ore.; $7,500; A. Zell, C. C. Maling, D. F. Stewart and I. Sichel.

The Stout Ditch Water Co., San Bernardino, Cal.; $14,400; E. Daley, W. F. Stiles et al, San Bernardino.

SEWERAGE.

DEERING, ME.—Bids are asked until May 13 for constructing sewers in Leland St. and Glenwood Ave. Wyer P. Ayer, Chn. Sewer Com.

RUTLAND, VT.—Reports state that about $6,000 will be spent this season for constructing sewers.

DEDHAM, MASS.—Erastus Worthington, Jr., Engr., informs us that plans will probably be prepared for the proposed 20-miles of sewer system but that no construction will be started this season.

QUINCY, MASS.—Bids are asked until May 11 for constructing about 900 ft. of 30 × 45-in. and about 4,300 ft. of 24 × 36-in. brick sewers, as stated in our advertising columns. E. W. Branch, Cy. Engr.

CENTRAL FALLS, R. I.—Reports state that sewers are soon to be constructed in several streets. Wm. F. Keene, Cy. Engr.

BUFFALO, N. Y.—Our correspondent informs us that the council has ordered sewers constructed in Pearl and Genesee Sts. and in Marigold, Richlawn, Amsterdam, Montclair and Shawnee Aves. Mark S. Hubbel, Cy. Clk.

SEA CLIFF (L. I.), N. Y.—The plans for a sewer system and disposal works for this place, prepared by Frank J. Hubbard, 203 Babcock Bldg., Plainfield, N. J., have been approved and returned by the state board of health. C. S. Dunning, Chn. Sewer Comn.

TROY, N. Y.—Local papers state that a petition has been presented to the mayor asking for the construction of a 36-in. brick sewer in Bond St. for a distance of 300 ft. Martin Schenck, Cy. Engr.

ELIZABETH, N. J.—The board of health has recommended to the council that sewers be constructed in Livingston St. and First Ave. N. K. Thompson, St. Comr.

JERSEY CITY, N. J.—Bids are asked until May 19 for constructing an extension of the Ravine Road sewer; bond, $40,000. Earle & Harrison, Engrs., Fuller Bldg.; Edlow W. Harrison, Theophilus Butts, Michael T. Connoly, Comrs.

NEWARK, N. J.—The sewer committee has ordered sewers constructed in several streets, according to reports. Chairman Ulrich may be addressed.

ERIE, PA.—Bids are asked until May 13 for furnishing cement and sewer pipe for the ensuing year. Benj. E. Briggs, Cy. Engr.

BALTIMORE, MD.—Bids are asked until May 18 for excavating and masonry in the construction of a sewage disposal plant at Bayview asylum. J. B. Dorsey, Purveyor.

NATIONAL SOLDIERS' HOME, VA.—Bids are asked until May 17 for furnishing and setting in place complete one sewage pumping station, with connections, etc. Wm. Thompson, Treas.; Wm. C. Gunnell, Engr.

ATLANTA, GA.—Reports state that an ordinance has been introduced into the council providing for the construction of a 10-in. brick sewer in East Fair St. W. C. Greene, Cy. Clk.

HUNTSVILLE, TENN.—This city is considering the question of issuing $30,000 in bonds for constructing a sewer system, according to reports.

CLEVELAND, O.—Bids are asked until May 22 for constructing the second portion of the Walworth Run sewer, including about 4,400 ft. of 11½-ft. to 14¾-ft. brick sewer; bond, $15,000, as stated in our advertising columns. Geo. R. Warden, Dir. Pub. Wks.; M. E. Rawson, Ch. Engr., and until June 2 for constructing a sewer in Lake Ave. from Detroit St. to the Lake Shore & Michigan Southern Ry. Co.'s tracks.

HAMILTON, O.—Local papers state that there is considerable discussion being had regarding the proposed conversion of Crawdord's Run into a sewer, at an estimated cost of about $46,000. L. A. Dillon, Cy. Engr.

LIMA, O.—The council has passed an ordinance ordering the construction of a 12-in. pipe sewer in South Elizabeth St. from Eureka to Circular St. J. M. McVey, Pres. Council; C. E. Lynch, Cy. Clk.

INDIANAPOLIS, IND.—Reports state that B. J. T. Jeup, Cy. Engr., has prepared plans and specifications for a sewer in Southeastern Ave. from Washington to State St., with branches in all streets between, and for a sewer in the alleys east and west of Walcott St. from Washington to New York St.

LEBANON, IND.—A brick sewer is to be constructed to cost about $25,000, according to reports.

DETROIT, MICH.—Bids are asked until May 13 for constructing brick sewers in Lothrop and Cadillac Aves. and Guilloz St., with manholes, etc. John McVicar, Pres. Bd. Pub. Wks.

BUTTE CITY, MONT.—The council has passed ordinances ordering the constructing of sewers in Utah Ave. and Jackson St. A. A. McMillan, Cy. Clk.

KANSAS CITY, MO.—Bids are asked until May 13 for constructing sewers in district No. 158. Henry A. Wise, Cy. Engr.

ST. JOSEPH, MO.—Reports state that the St. Joseph Terminal Co. has awarded the construction of a 6-ft. brick sewer across its property to Charles L. Nowland. The estimated cost is about $5,000.

TRINIDAD, COLO.—C. H. Knickerbocker, Cy. Engr., is said to be preparing plans and specifications for the Beech St. sewer, and also for the Arizona Ave. culvert.

SPOKANE, WASH.—The board of public works has recommended the immediate construction of a 36-in. brick sewer in Riverside Ave., according to reports.

GARBAGE DISPOSAL—STREET CLEANING.

ALBANY, N. Y.—The board of health will probably ask for bids at once for garbage disposal by the utilization process. Dr Curtis, Chn.

BALTIMORE, MD.—Bids are asked until May 20 for the removal of all garbage, refuse, etc., within the city for a term from July 1, 1897, to June 1, 1900. Alcaeus Hooper, Mayor.

CLEVELAND, O.—The specifications are reported as about complete for the proposed garbage disposal plant. Mayor McKisson may be addressed.

MILWAUKEE, WIS.—The council has voted to so amend the garbage disposal ordinance that the board of health may now proceed to ask for bids for constructing the plant.

UKIAH, CAL.—The committee has recommended the purchase of a sprinkling wagon. B. S. Hirsho and W. W. Porterfield may be addressed.

STREETS AND ROADS.

BOSTON, MASS.—Benj. W. Wells, Supt.Sts.,reports that the proposed asphalting of Perry, I and Common Sts., will cost about $12,500, and the macadamizing of North Beacon St., $11,300.

WEBSTER, MASS.—Reports state that bids will soon be asked for macadamizing Main St., a distance of about 1,380 ft.

NEW BRITAIN, CONN.—Reports state that extensive street improvements will be made this season. G. C. Dunham, Cy. Engr.

NORWICH, CONN.—West Main St., from Ann St. to the city limits, is to be graded and macadamized at an estimated cost of about $6,000, according to reports. C. E. Chandler, Cy. Engr.

ARVERNE (L. I.), N. Y.—Bids are asked until May 22 for macadamizing and otherwise improving certain streets and avenues, as stated in our advertising columns. A. E. Karelsen, Clk.; J. R. Waters, Pres.

BROOKLYN, N. Y.—Bids are asked until May 19 for asphalt paving in 16 streets; bond, $56,275. Theodore B. Willis, Comr. Cy. Wks.—M. J. Dady, at $14,038, was the lowest bidder for grading and granite paving on Miller Ave., from Jamaica Ave. to Eastern Parkway, and the Eastern Bermudez Co., at $16,569, the lowest bidder for laying 5-ft. asphalt strips on each side of Bushwick Ave., from Vanderveer St. to Myrtle Ave.

EASTCHESTER, N. Y.—Bids are asked until May 20 for grading and paving about 6,800 lin. ft. of roadway, as stated in our advertising columns. William J. Fisher, Town Clk.

ITHACA, N. Y.—This city will spend $30,000 this year for paving, as stated in our advertising columns. A. W. Force, Secy.

MIDDLETOWN, N. Y.—Reports state that this town has voted to appropriate $3,000 for permanent street improvements, and $1,200 to purchase a stone crusher. C. H. Smith, Cy. Engr.

NEWTOWN (L. I.), N. Y.—Bids are asked until May 18 for improving the roads, streets and avenues of this town, as stated in our advertising columns. Joseph Bernel, Supervisor; John J. McLaughlin, County Engr., Jamaica, L. I.

NEW YORK, N. Y.—Bids are asked until May 18 for paving the newly made land in the vicinity of Barclay St. ferry with granite or Staten Island syenite blocks. Geo. S. Terry, Secy. Dept. Docks, Pier "A."

NEW YORK, N. Y.—Bids are asked by the commissioner of public parks, Arsenal, Central Park, until May 24 for asphalt paving in Central Park and for repairing with concrete the walk adjoining the Battery sea wall.

PATCHOGUE (L. I.), N. Y.—This village has closed a contract with the Eastern Brick Paving Co., Catskill, N. Y., to pave Ocean Ave., from Baker Ave. to Main St., with brick at $1.20 a sq. yd., according to reports.

PIERMONT, N. Y.—This town has voted to issue $6,000 in bonds for improving the streets, according to reports.

ROCHESTER, N. Y.—Local papers state that bids will be asked for constructing curbs and gutters, from North to Scio St., on University ave.

SEA CLIFF (L. I.), N. Y.—Bids are asked until May 19 for grading, regulating and macadamizing about 3½ miles of streets and for curbing sidewalks, paving gutters, etc., as stated in our advertising columns. Frank J. Cole, Village Clk.

TROY, N. Y.—Reports state that $25,000 has been added to the amount annually allowed for street improvements, making a total of $610,000.

CAMDEN, N. J.—J. J. Albertson, County Engr., writes us that the Gloucester county board of freeholders has formally accepted the Crown Point Telford road, and made the final payment to B. M. & J. T. Shanley, the contractors.

ALLEGHENY, PA.—D. L. Fulton,Supt. Bureau of Highways and Sewers, informs us that Booth & Flinn, Ltd., were awarded, May 4, contracts for grading, paving and curbing in 33 streets, the total bid being $223,780. The Pennsylvania Asphalt Paving Co. secured contracts amounting to $10,502, the Sicilian Asphalt Paving Co. $29,543, and the Vulcanite Asphalt Paving Co. $39,118. Joseph Hastings was awarded contracts for grading, brick paving and curbing in three streets at $4,073.

ERIE, PA.—Bids are asked until May 13 for repairing stone pavements, building crosswalks, resetting curbing, etc., for the year ending April, 1898, also for filling and grading on Fourth St. Benj. E. Briggs, Cy. Engr.

GLENFIELD, PA.—Bids are asked until May 12 for furnishing a road scraper to be operated by four, six or eight horses. John Sperber, Chn. St. Com.

GREENSBURG, PA.—Reports state that the council awarded, May 4, the contract for sewering, paving and curbing East Pittsburg St. to Geo. W. Wood & Co.; estimated cost, about $8,000.

INDIANA, PA.—A petition is to be presented to the council asking that Church St. be paved with brick, according to reports.

PITTSBURG, PA.—Local papers state that Fifth Ave. is to be extended to the river by the widening of Cecil Alley, from 20 ft. to 60 ft. E. M. Bigelow, Dir. Pub. Wks.

READING, PA.—A meeting is to be held, according to reports, to determine whether the proposed paving shall be done with asphalt or brick. Samuel S. Hoff, Cy. Engr.

SEWICKLEY, PA.—It is reported that Walnut St., from Beaver to Thorn St., is to be paved with brick. Philip S. Doty, St. Comr.

WASHINGTON, D. C.—Bids are asked by the district commissioners until May 29 for furnishing paving blocks or bricks, terra cotta pipe, etc., as stated in our advertising columns.

MADISON, W. VA.—Extensive road improvements are being contemplated, according to reports.

JACKSONVILLE, FLA.—The council has passed an ordinance providing for the paving of Main St., with brick, at an estimated cost of $37,787. Wm. C. West, Secy. Bd. Pub. Wks.

HAMILTON, O.—A petition has been presented to the council asking that Main St. be paved, and the city engineer has been ordered to prepare plans and specifications for the paving. L. A. Dillon, Cy. Engr.

NAPOLEON, O.—Bids are asked until June 3 for grading, curbing and paving with vitrified brick or block about 14,760 sq. yds. of Washington St., from Monroe St. to Sheffield Ave. Jas. P. Mason, Village Clk.; C. S. Schwab, Engr.

ADRIAN, MICH.—The council has passed resolutions providing for the paving and curbing of various streets. James Blair, County Surv.

CHICAGO, ILL.—Bids are asked until May 28 for improving various alleys and streets. L. E. McGann, Comr. Pub. Wks.

DES MOINES, IA.—The council has directed the board of public works to advertise for bids for grading, paving, and curbing various streets. John Sherman, Chn. Pub. Wks.

IOWA CITY, IA.—Bids are asked until May 21 for about 14,000 sq. yds. of brick paving. Arthur J. Cox, Cy. Engr.

KANSAS CITY, MO.—Bids are asked until May 24 for macadamizing the Blue Springs road. Thos. J. Callahan, County Surv.

ST. LOUIS, MO.—A movement is on foot to have St. Louis Ave. paved with asphalt, according to reports. Robt. E. McMath, Pres. Bd. Pub. Improvement.

DENVER, COLO.—The board of public works has adopted plans and specifications for the grading and curbing of 16 streets, at an estimated cost of about $50,250. E. Monash, Pres. Bd.—A boulevard is proposed between this city, Montclair and Fletcher.

SAN FRANCISCO, CAL.—Several streets between Central and First Aves., Sacramento and Jackson Sts., are to be paved at an estimated cost of about $150,000 according to reports. Chas. S. Tilton, Cy. Engr.

OGDEN, UTAH.—N. W. Bethel, Cy. Engr., estimates that the proposed macadamizing of 24th St. will cost about $14,452.

MANUFACTURING PLANTS.

BUFFALO, N. Y.—Charles Bayer, 38 Niagara St., has prepared plans for a $50,000 brewery for Prandel, Engel & Keppler, of Jamestown, N. Y.

COXSACKIE, N. Y.—It is stated that the Kennedy Valve Mfg. Co., 73 John St., New York, proposes to begin soon on the construction of a new iron and brass foundry at its works in this place.

SPOTSWOOD, N. J.—Press reports state that a German powder company proposes to build a plant in Middlesex county, near this place. The Rhenish-Westphalian Explosives Co., Cologne, Germany, has purchased about 557 acres of land and will probably employ about 4,000 people. Gen. Mgr., Emil Muller.

PITTSBURG, PA.—A plant will this summer be under construction for the Castalia Portland Cement Co., recently incorporated. W. J. Prentice, Pres., Pittsburg.

WILKES-BARRE, PA.—The Golden Silk Co. is reported to have awarded contracts for erecting a 4-story silk mill.

RALEIGH, N. C.—The Pilot Cotton mills are putting in some new machinery, and it is reported that later in the present year they will add still more, which is yet to be contracted for.

RANDLEMAN, N. C.—It is reported that a new cotton mill (for the building and entire equipment of which contracts are yet to be let) will be built soon at Walker Mills, near Randleman. The company has not yet been organized, but it is expected to be in a very short time. J. L. Hall, E. E. Mendenhall, Mayor, or F. N. Ingold can furnish information.

SALEM, N. C.—J. W. & H. E. Frius, of this place, will purchase a complete plant for transmitting by electricity large water power 25 miles distant on the Yadkin River, to be sold to several factories in Winston, Salem and other N. C. towns.

GREENSBORO, GA.—F. S. Mosher, of Greensboro and Henrietta, Ga., proposes to construct a new cotton mill in this city.

SAVANNAH, GA.—It is reported that the construction of works for the Savannah Locomotive Works & Supply Co. will soon be begun. The company was recently incorporated with a capital stock of $100,000. W. C. McDonough and Thos. Ballantyne are among those interested.

SAVANNAH, GA.—The stockholders of the Savannah Cotton Mills have decided to sell the plant. It is said that it will need considerable new equipment.

BIRMINGHAM, ALA.—The Avon Cotton Mills Co. is reported to have awarded the contract for constructing the buildings to T. C. Thompson & Co., Birmingham, and that for the timber to the Southern Mfg. Co., Gadsden, Ala. The building will be 127 × 296 ft., and will contain 32,400 spindles and 1,000 looms. David Trainer, Secy. and Mgr.; Engr., W. B. Smith, Columbia, S. C.

MONTGOMERY, ALA.—Contracts are reported to have been awarded for furnishing the Montgomery Cotton Mills with machinery.

FRESNO, CAL.—The capital stock of the Forsyth Seeded Raisin Co. is reported to have been increased by $100,000. With this increase it is proposed to erect a 2-story factory, 280 × 100 ft., besides making other extensions to its plant.

UKIAH, CAL.—It is reported that Robt. Dollar, a lumberman, of Mendocino county, wants to construct a mill near this city, at a cost of about $50,000.

KEEWATIN, ONT.—The Ottawa Gold Milling & Mining Co., recently incorporated, proposes to erect a 50-stamp mill at this place. The reduction works will not only be for its own products, but for those of the other companies at this place. Edward Lyons, of Fort Francis, Ont.; A. E. Montgomery, Toronto, Ont., and others may be able to give further information.

NIAGARA FALLS, ONT.—It is stated that ground will be broken at once for the proposed new factory in this city for the Carborundum Co.

GAS PLANTS.

NORTH ADAMS, MASS.—It is stated that the fire district commissioners have reported in favor of gas for lighting the streets. A. E. Hall and S. G. Tenney may be addressed.

WORCESTER, MASS.—The council has been asked by the Worcester Gas Light Co. to grant it permission to extend its mains in a number of streets. The extensions proposed will require about 5,700 ft. of 2 to 4-in. mains. Supt. Lamson may be addressed.

PAWTUCKET, R. I.—Reports state that the Pawtucket Gas Co. will soon have a two-lift gas holder, 112 x 81 ft., erected after plans prepared by Bartlett, Hayward & Co., Baltimore, Md.

BUFFALO, N. Y.—The Great Valley Oil & Gas Well Co. is the name of a new Buffalo concern which will put down some test wells near Great Valley, N. Y. F. J. Illig and Alderman Durr, of Buffalo, are among the stockholders; about 4,000 acres have been leased.——Plans have been prepared by Albert Kruse for the mains for the Queen City Gas Co.'s proposed plant. The new plant is to have a capacity of about 1,000,000 ft. a day. Philo D. Beard may be addressed.

LONACONING, PA.—It is reported that Isaac Bradburn and Duncan R. Sloan have been granted a franchise for a gas plant in this city, work on which will be begun at once.

RICHMOND, VA.—The joint committees on finance and light have recommended that bids be asked for the sale of the gas works. The most satisfactory bid will be submitted to the vote of the people at the next election. Councilmen Starke, Wallenstein and Tanner are members of the committees.

PETERSBURG, IND.—A new gas well has recently been opened which has a pressure of 565 pounds, and a flowing volume of 4,000,000 cu. ft. A. H. Taylor, J. E. Schurz and C. F. Boonshot are among those interested.

NEW COMPANIES.—Boldt Natural Gas Co., Muncie, Ind., $10,000.

Schroeder Gas Co., Trenton, N. J.; $1,000,000, with full amount paid in; Mahlon Hutchinson, Washington, D. C.; Martin R. Jacobs, Brownsville, Pa.; Chas. B. Cogill, Jr., Trenton.

Crystal Light Co., New York, N. Y.; $500,000, with $100 paid in; to manufacture gas mantles, chemicals, gas burners, etc.; Geo. W. Ballow, New York; Winthrop Pana, Portchester, N. Y.; Jos. Garrison, Newark, N. J.

American Introduction Co., Jersey City, N. J.; $50,000, with the full amount paid in; to manufacture gas burners, etc.; Barrow B. Lyons, New York; Samuel A. Williams, Bloomfield, N. J.

Capitol Oil Co., Los Angeles, Cal.; $100,000; Abe Haas, Herman Levi, J. Baruch, of Los Angeles.

MISCELLANEOUS CONTRACTS.

DOCK.—Baltimore, Md.—Bids are asked until May 17 for building a dock at Loch Raven. N. S. Hill, Jr., Ch. Engr. Water Dept.

FIRE ALARM SYSTEM.—Southington, Conn.—Arrangements are reported as being made for the purchase of a fire alarm system.

SHAFTS.—Houghton, Mich.—The Calumet & Hecla Co. is reported to have begun the construction of three shafts on the Osceola lode.

DAM.—Pittsburg, Pa.—It is stated that Hulings Bros., Pittsburg, have been awarded the contract for constructing the Chanoine dam at Morrill at $94,000.

UNDERGROUND WIRING.—Charleston, S. C.—The South Carolina Telephone Co. has submitted a proposition to the council for putting its wires underground.

SCALES, ETC.—Washington, D. C.—Bids are asked until May 20 for furnishing scales, beams, weights and other weighing apparatus for use in about 50 cities. L. J Gage, Secy. Treas. Dept.

AIR COMPRESSOR.—Baltimore, Md.—Bids were asked until May 12 for furnishing and connecting an air compressor, etc., on the fire boat "Cataract." A. R. Cathcart, Pres. Fire Comrs.

TELEPHONE.—Waverly, S. C.—A charter has been granted to the Waverly Telephone & Telegraph Co., with L. C., F. W. and St. John Lachiotte and Louis Bressiater as incorporators.

TUNNEL.—Silver Plume, Colo.—Jos. Gallagher, State Senator, Silver Plume, writes us that the Snowey Range Tunnel will be built by convict labor, as a state enterprise, and not by contract.

SALE OF WRECKS.—Montreal, Que.—Bids are asked until May 26 for the removal and sale of the wrecks of two steel steamships of 2,050 tons and 3,428 tons. Elder, Dempster & Co., Commissioners St.

CANAL WORK.—Ottawa, Ont.—A. G. Blair, Minister of Railways and Canals, is reported as having announced that all the St. Lawrence River canals will be enlarged to a depth of 14 ft. by the spring of 1899.

TELEGRAPH WIRE.—Brooklyn, N. Y.—Bids are asked until May 20 for furnishing 300 miles of No. 12, insulated medium, hard drawn, copper telegraph wire; surety, $21,000. Wm. C. Bryant, Comr. Dept. of Fire.

REMOVAL OF BOULDERS, ETC.—Detroit, Mich.—Bids are asked until June 1 for removing boulders, rock, etc., from Ballard's Reef Channel, as stated in our advertising columns. Lieut.-Col. G. L. Lydecker, U. S. Engr., Detroit.

DAM.—Martinsburg, W. Va.—Dam No. 6, on the Potomac River, was washed out May 4. It is said to have recently been completed at a cost of about $10,000. W. I. Manning, Ch. Engr., Baltimore & Ohio R. R. Co., Baltimore, may be addressed.

REMOVING WRECK.—New York, N. Y.—Bids are asked until June 1 for removing the wrecked steamship "Alvena," lying in the main ship channel, as stated in our advertising columns. Lieut.-Col. Wm. Ludlow, U. S. Engrs., Army Bldg., New York.

TELEPHONE PLANT.—Ashtabula, O.—The Ohio Telephone Construction Co., Norwalk, O., is reported to have been awarded the contract for constructing a telephone plant in this city, at a cost of $30,000. Manager Graham and Supt. Barkdull may be addressed.

EARTHEN EMBANKMENT.—Evansville, Ind.—Bids are asked until May 24 for furnishing material and constructing an earthen embankment, as stated in our advertising columns; bond, $5,000. F. Grote, Joseph Brentano, B. F. Von Behren, Trustees Cy. Water-Wks.

PILING, ETC.—Pittsburg, Pa.—It is reported that the Philadelphia Gas Co. will soon begin driving piles at Brunots Island in the Ohio River. About 3,000 piles will be driven, and after the filling is completed the company will thereby acquire about 30 acres of land.

DOCKS.—The construction of the new coal docks will soon be begun by the Pennsylvania & Ohio Fuel Co. The dock will be 800 x 400 ft., with framework of iron. N. M. Nelson & Co. are said to have the contract for furnishing about 500,000 ft., B. M., of lumber for the docks.

WIRE.—Santiago, Chili.—It is reported that the telegraphic department of the Chilian government will receive bids until about June 30 for a supply of galvanized iron wire, insulators, Morse instruments and other electrical supplies, to be used in the telegraphic department of the government.

TELEPHONE SYSTEM.—Albany, N. Y.—A bill is awaiting Governor Black's signature which authorizes the spending of $410,000 on canal work, and of this amount $150,000 is to be spent for constructing a telephone system to connect the various state offices along the canal. Geo. W. Aldridge, Supt. Pub. Wks.

PLANS FOR PARK.—Allegheny, Pa.—It is reported that this city is asking for plans from American and European landscape architects for improving Riverview Park. The park already consists of over 100 acres. Ex-Mayor W. M. Kennedy and Robert McAfee, Dir. Pub. Wks., may be addressed.

TUNNEL.—San Francisco, Cal.—Local papers state that the Merchants' Exchange and the Board of Trade will present a plan to the supervisors for a tunnel beneath the estuary, in opposition to the construction of a bridge there. Col. Lyman Bridges, of the Board of Trade, has completed plans for the work, which is estimated to cost about $200,000.

STEEL POCKET DUMP.—New York, N. Y.—The following bids were opened by Geo. E. Waring, Jr., Comr. St. Cleaning, May 12, for building a steel pocket dump at the foot of 131st St. West:

Owego Bridge Co., Owego, N. Y.	$10,318
Riter & Conley, Pittsburg, Pa.	10,595
Penn Bridge Co., Beaver Falls, Pa.	10,600
Augustus Smith, 39 Cortlandt St., New York city.	11,213
King Bridge Co., Cleveland, O.	11,700

RECEIVING BASIN.—Philadelphia, Pa.—It is reported that the navy department will soon ask for bids for dredging for a receiving basin for ships at the League Island navy yard in this city. Congress recently appropriated $100,000 to begin the work. The plans of the bureau are so drawn that beginning with a small basin in the Back Channel, next to the mouth of the Schuylkill River the dredging can be carried on from year to year until the entire Back Channel as far as Broad St. has been turned into a vast receiving basin. The original basin will be 1,000 ft. long by 300 ft. broad, at the bottom, and 420 ft. at the top, with a depth of 30 ft. The present 11-ft. channel from the Delaware River will be dredged out to 26 ft. depth.

LOCKS AND DAMS.—Pittsburg, Pa.—The following bids were received by the U. S. engineer April 27 for constructing six locks and dams in the Monongahela River between Morgantown and Fairmont, W. Va., and two in the Allegheny River, as advertised in Engineering News:

	Monongahela River.	Allegheny River.
Jas. McCarron, Philadelphia	$622,183	$434,669
Heidmaier & Neu, Chicago	665,324	406,406
McLean, Kaufman & Co., New York	694,723	492,144
Houston Construction Co., Phila.	699,615	.....
C. I. & A. W. McDonald, Pittsburg	[1]719,698	436,999
T. A. Gillespie & Co., Pittsburg	[2]753,604	[3]575,300
J. W. Hoffman & Co., Philadelphia	770,345	.....
Michael J. Fenton, New York	792,361	550,849
Truax & Sheridan, Buffalo, W. Va.	843,491	.....
Stern & Cramer, Belpire, O.	843,491	.....
Owen Patterson & Kulty, Baltimore	926,154	.....
McArthur Bros., Chicago	980,823	518,569
Jacob Friday & Sons, Pittsburg	1,010,660	663,186
B. J. Coyle, Washington, D. C.	1,022,518	.....
I. V. Hoag, Jr., Pittsburg	1,061,387	667,293
Sloan, McIlvain & Ott Bros., Allegheny.	.....	393,425
W. B. Rodgers, Pittsburg	.....	528,218
Keeling & Ridge, Pittsburg	.....	618,625
Hulings Bros., Pittsburg	.....	808,799

Total of separate bids, [1]$733,009; [2]$778,243; [3]$575,400.

CONTRACT PRICES.

ASPHALT PAVING.—Elmira, N. Y.—Thos. Spence, Clk. Bd. Pub. Wks., writes us that the following bids were opened May 3 for paving to cost $16,000 or $17,000, as advertised in Engineering News; action on the bids was deferred until May 10:

	Per sq. yd.
Rock Asphalt Pavement Co., Rochester	$2.43
Barber Asphalt Paving Co., New York	2.49
Costello & Neagle, Elmira	2.50

BRICK PAVING.—Marietta, O.—W. P. Mason, Cy. Engr., writes us that the contract for paving in Butler St. has been awarded to John Wilking, at $1,168, the bids being as follows:

Quantities.	John Wilking, Marietta.	T. B. Townsend Co., Zanesv'l.	W. J. Berry, Dillies Bottom.
Brick .....1,475 sq. yds.	$0.57	$0.60	$0.62
Curbing ..... 840 lin. ft..	.33	.33	.33
Catchbasin	25.00	25.00	25.00
15-in. drain	.50	.50	.80

SEWER.—Cedar Rapids, Ia.—E. P. Boynton, Cy. Engr., informs us that the following bids were opened May 6 for constructing a pipe sewer; contract awarded to M. S. Jackson:

BRICK PAVING.—Bradford, Pa.—P. B. Winfree, Cy. Engr., writes us that the following bids were opened May 3 for brick paving, as advertised in Engineering News:

	Sheehan & McGhan, Bradford, Pa.	Miday & Melbourn, Canton, O.	Jas. McCloud & Co., Williamsport, Pa.	Geo. W. Partridge, Buffalo, N. Y.
East Main St.:				
Excavation... 5,625 cu. yds.	$0.28	$0.25	$0.30	$0.35
Paving .....8,576 sq. yds.	1.73	1.75	1.77	1.80
Curbing .....6,880 lin. ft..	.42	.41	.42	.46
Curb reset ... 10 " "	.10	.20	.20	.15
Circular curb 24 " "	.60	.65	.70	.46
Drain tile ..3,500 " "	.10	.07	.07	.10
Extra gravel .. 100 cu. yds.	1.00	1.00	1.00	1.00
12-in. sew. pipe 100 lin. ft..	.20	.28	.60	.50
15-in. " " 150 " "	.27	.52	1.00	.50
Total	$19,827	$19,704	$20,330	$21,158
Pearl St.:				
Excavation .... 960 cu. yds.	$0.28	$0.25	$0.25	.....
Paving .....2,576 sq. yds.	1.72	1.75	1.77	.....
Curbing .....1,445 lin. ft..	.40	.41	.42	.....
Curb reset ... 10 " "	.10	.20	.20	.....
Circular curb.. 36 " "	.60	.65	.65	.....
Drain tile .... 500 " "	.10	.07	.06	.....
Total	$5,350	$5,401	$5,462	.....
Congress St.:				
Excavation ...1,160 cu. yds.	$0.25	$0.25	$0.27	.....
Paving .....2,757 sq. yds.	1.70	1.75	1.77	.....
Curbing .....2,376 lin. ft..	.40	.41	.42	.....
Curb reset ... 10 " "	.10	.20	.20	.....
Circular curb.. 24 " "	.60	.65	.65	.....
Drain tile ....1,200 " "	.10	.07	.07	.....
15-in. sew. pipe 100 " "	.25	.38	.70	.....
Total	$6,088	$6,229	$6,363	.....

ROCK EXCAVATION AND DREDGING.—Philadelphia, Pa.—The lowest bid received April 27 for removing 2,000 cu. yds. of rock, at Schooner Ledge, was that of H. T. Dunbar & Co., at $14 a cu. yd. The only other bid was that of Cavin, Sullivan & Peoples, at $35. The bids for dredging at Greenwich Point, etc., were as follows; rock and loose material to be dumped at site of bulkhead and piers; filling for widening Delaware Ave. to be placed over bulkhead wall:

Quantities.	American Dredging Co.	F. C. Somers.	Cavin, Sullivan & Peoples.	Michael J. Kennedy.
Rock ..... 250 cu. yds.	$10.00	$15.00	$35.00	$15.00
Loose m'ter'l 50,000 " "	.20	.40	.35	.12
Filling .....50,000 " "	.32	.50	.35	.45
Material placed abv h.w.m.	.18¾	.24	.35	.55

DREDGING.—Milwaukee, Wis.—Capt. Geo. A. Zinn, U. S. Engrs., opened the following bids May 6 for 50,000 cu. yds. of dredging at Green Bay Harbor, as advertised in Engineering News:

	per cu. yd., cts.
John Smith, Manistee, Mich.	10
Green Bay Dredge & Pile Driver Co., Green Bay, Wis.	10
Eggers & Simono, Two Rivers, Wis.	10
William A. Starke, Milwaukee, Wis.	10
Chicago Dredging & Dock Co., Chicago, Ill.	12¾
Arthur H. Vogel, Milwaukee, Wis.	09½
Racine Dredge Co., Racine, Wis.	10½

DREDGING.—New York, N. Y.—Maj. H. M. Adams opened the following bids May 3 for dredging: James McSpirit, Jersey City, 18¾ cts. a cu. yd. for Mattawan Creek and 34 cts. for Elizabeth River; Alonzo E. Smith, Islip, N. Y., 20 cts. and 45 cts. respectively; all bids for prism measure.

BRICK PAVING.—Des Moines, Ia.—Bids have been opened for paving portions of 12 streets with brick, the successful bidders being the Capital City Brick & Pipe Co., Des Moines Brick Mfg. Co., Likes Improvement Co., and J. H. Kilmar. The prices ranged from 97 cts. to $1.46 a sq. yd.

CAST-IRON PIPE.—Erie, Pa.—The lowest bid opened by the water board for annual supply of cast-iron pipe, about 500 tons, was that of the Lake Shore Foundry, at $16.35 a ton. The Addyston Pipe & Steel Co. bid $16.50. A local paper states that last year the board paid $18.25 a ton.

ASPHALT PAVING.—Indianapolis, Ind.—The lowest bid opened May 3 for asphalt paving was that of the Gesno-Kentucky Rock Asphalt Co., at $1.25 a sq. yd. for replacing present asphalt surface and $2.10 a sq. yd. including foundation. James W. Wilding is president of the new company.

Bids on Twelfth Ave. Sewer Extension, Cedar Rapids, Ia.

Bidder.	Pipe, per lin. ft. 18-in.	15-in.	12-in.	10-in.	8-in.	6-in.	Brick in specls, per M.	Manhole covers, each.	Rock excavation, cu. yd.	Total.
M. V. Kennedy, Des Moines, Ia.	$0.89	$0.70	$0.59	$0.47	$0.355	$0.29	$13.00	$8.50	$2.50	$7,187
I. H. Arel, Cedar Rapids, Ia.	.80	.75	.65	.60	.40	.35	19.50	9.00	3.00	7,933
Hall & McLaughlin, Cedar Rapids, Ia.	1.22	1.14	1.01	.87	.68	.55	18.00	7.25	3.00	11,717
K. A. Smith & Co., Minneapolis, Minn.	.78	.58	.59	.42	.38	.35	16.50	7.25	2.50	7,311
Bokorney & Wardle, Cedar Rapids, Ia.	.86	.75	.76	.46	.34	.31	17.00	7.50	4.50	7,584
J. H. Green & Sons, Appleton, Wis.	.79	.685	.53	.505	.445	.405	16.50	7.00	2.50	7,827
M. S. Jackson, Cedar Rapids, Ia.	.65	.45	.50	.35	.27	.24	15.00	8.00	3.00	5,836
Murray Bros., Cedar Rapids, Ia.	.88	.65	.67	.40	.36	.30	18.00	9.00	3.50	7,627
Miller & Dolan, Winona, Minn.	.83	.63	.67	.49	.49	.31	17.00	7.50	1.50	8,134
Ford & Delahunt, Cedar Rapids, Ia.	.81	.70	.70	.55	.33	.27	20.00	6.00	4.00	7,337

DREDGING.—Detroit, Mich.—Lieut.-Col. G. J. Lydecker, U. S. Engrs., opened the following bids May 7 for dredging (1) Black River, at Port Huron, Mich.; (2) bar at mouth of Black River, Mich; (3) Belle River, at Marine City, Mich.; and (4) Clinton River, Mich., as advertised in Engineering News:

Bidder.	Per cu. yd., scow measurement. 1.	2.	3.	4.
Edmund Hall, Detroit, Mich.	$0.08	$0.10	$0.11	$0.15
Jos. R. McCullom, Port Huron	.24	.295	.24	...
Carkin, Stickney & Cram.	.25	.28	.20	.24
James Rooney, Toledo, O.	.14	.21	.14	.18

PIPE SEWER.—Scranton, Pa.—The following bids were opened May 6 for constructing a sewer on Wyoming Ave., Larch St., and Washington Ave.; length, 1,335 ft.; size of pipe, 8, 10 and 12-in.; average depth, 10.6 ft.; price per foot includes 7 manholes, 1 basin, and 42 house connections (average length, 22¼ ft.) to curb line: P. T. Mulligan, $2.34 per lin. ft.; Flanagan & O'Hora, $1.65; Thos. P. Gordan & Co., $2.19; B. M. Fox & Co., $2.60; P. J. Thornton & Co., $1.89.

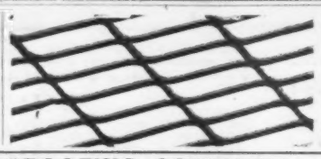
IRON AND STEEL.—Cincinnati, O.—Maj. James F. Gregory, U. S. Engrs., opened the following bids May 1 for furnishing and delivering at High Bridge, Ky., about 77,320 lbs. of iron and steel, for improving Kentucky River, Ky., as advertised in Engineering News:

Bidders.	Cast iron, 25,000 lbs.	Cast steel, 320 lbs.	Wt. iron and steel, 52,000 lbs.	Total.
Atlanta (Ga.) Mach. Wks.	$0.035	$0.035	$0.0525	$3,616
T. C. Gill & Co., Phila.	.0424	.0424	.0774	5,008
Chattanooga Car & Fdry Co.	.03	.03	.046	3,152
Fort Pitt Bridge Works[1]	.0444	.0444	.0474	3,589
Weimer Machine Works[2]	.03¾	.08	.065	4,374
J. G. Wagner Co., Milw'kee.	.038	.038	.049	3,510
J. P. McGuire, Cleveland	.024	.024	.0375	2,558

[1]Pittsburg; [2]Lebanon, Pa.

EXPANDED METAL.

PITTSBURGH, 531 Wood Street.
NEW YORK, 256 Broadway.



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Cast Iron Pipe and Specials, Hydrants, Gates, Pig Lead, etc — AKRON SEWER PIPE. — Lead Pipe, Plumbers' Materials.

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MANUFACTURERS OF EXPLOSIVES,
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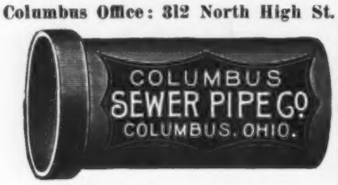

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CONTRACTORS' AND MASONS' SUPPLIES.
Largest Stock in N.E.
SEND FOR CATALOGUE
N.E. AGTS. AKRON SEWER PIPE

WATER BONDS.

SHARON SPRINGS, N. Y.

Sealed proposals will be received by the Board of Water Commissioners of the Village of Sharon Springs, N. Y., until 7 o'clock p. m., on the 18th day of May, 1897, for the purchase of $30,000 worth of water-works bonds. The right is reserved to reject any or all bids.

A. W. GARDNER,
C. M. MALLETT,
N. W. STRATTON,
J. S. HYNEY,
D. A. HARPER,
Board of Water Commissioners,
Village of Sharon Springs.

Sharon Springs, May 3, 1897. 18-2t

U. S. ENGINEER OFFICE, Montgomery, Ala., April 19th, 1897.—Sealed proposals for furnishing and delivering at Pensacola, Fla., an ELECTRIC PLANT and AMMUNITION HOISTS, will be received here until 12 o'clock m., May 29th, 1897, and then publicly opened. Information furnished on application. F. A. MAHN, Major, Engrs. 17-4t

Other Proposals, Pages XXIV & XXVI

WATER-WORKS AND DRAINAGE FRANCHISE.

ST. LAMBERT, QUE.

Sealed tenders will be received up to noon on Monday, May 17th, 1897, for a franchise for a system of Water-Works; also for construction of a system of drainage at St. Lambert. Plans and specificaitons can be seen after Tuesday, May 4th, at the office of the Engineer, J. E. VANIER, C. E., Imperial Buildings, Montreal.

JAMES R. BEATTY, Sec.-Treas.
St. Lambert.

PIPE OUTLET SEWER.

SWARTHMORE, PA., April 29, 1897.

Sealed bids will be received by the Sewerage Committee of the Borough of Swarthmore, until noon, May 15, 1897, for furnishing materials and constructing a 12 and 15-inch vitrified pipe outlet sewer about 14,500 feet long. Plans, specifications and instructions to bidders may be seen at the office of Henry S. Kent, Swarthmore. The Borough of Swarthmore reserves the right to reject any or all bids.

A. H. TOMLINSON,
WM. J. HALL,
T. S. SAFFORD,
A. C. LEWIS,
Committee.

WM. EASBY, JR., Engineer. 18-2t

STEEL HIGHWAY BRIDGE.

OFFICE COMMISSIONER OF PUBLIC WORKS, CITY HALL, PROVIDENCE, R. I., Apr. 27, 1897.

Sealed proposals addressed to the Commissioner of Public Works, City Hall, Providence, R. I., will be received until eleven o'clock a. m., May 15, 1897, for furnishing a steel highway bridge over the Providence River, to replace the present Weybosset bridge.

Plans and specifications may be seen at the City Engineer's office, City Hall, where blank forms of contract, proposal and bonds may be obtained.

Each proposal must be accompanied by a bond or certified check for two thousand dollars.

The right to reject any or all bids is reserved.

ROBERT E. SMITH,
17-3t Commissioner of Public Works.

SEWERS.

BLOOMFIELD, N. J.

Sealed proposals will be received by the Township Committee of the Township of Bloomfield, Essex County, New Jersey, at the office of the township clerk of said Township, until May 17th, 1897, at 4:30 p. m., for the furnishing of all labor and materials and doing all the work according to plans and specifications prepared by the sewer engineer for the construction of sewers.

The work is to be let as Class A and Class B, and must be bid for separately.

Class A includes all the eight and ten-inch pipe.

Class B includes all the fifteen and twenty-inch pipe.

Class A includes the following quantities, more or less:

9,050 feet eight-inch diameter salt glazed Vitrified Sewer pipe.
200 feet eight-inch diameter Iron pipe.
1,122 feet ten-inch diameter salt glazed Vitrified Sewer pipe.
50 feet ten-inch diameter Iron pipe.
700 Y-branches on eight-inch pipe.
52 Y-branches on ten-inch pipe.
7 Flush tanks.
25 Manholes.

Class B includes the following quantities, more or less:

1,500 feet 15-inch diameter salt glazed vitrified sewer pipe.
200 feet 15-inch diameter iron pipe.
2,900 feet 20-inch diameter salt glazed vitrified sewer pipe.
40 feet 20-inch diameter iron pipe.
150 Y-branches on 15-inch pipe.
116 Y-branches on 20-inch pipe.
700 feet 6-inch risers on 20-inch pipe.
116 double Y junction iron riser tops, extra 6-inch diameter.
17 Manholes.

Plans and profiles for the above work may be seen at the office of the sewer engineer, 25 Broad St., Bloomfield, N. J.

Specifications and bidding blanks may be had upon application to the sewer engineer, A. H. Olmsted.

Each bid for Class A or Class B must be accompanied by a certified check for $500, drawn to the order of the Township of Bloomfield, as a guarantee of good faith of the bidder.

The Township Committee reserves the right to reject any or all bids.

Each proposal must be sealed and endorsed "Sewer Proposals," and addressed to

WM. L. JOHNSON, Township Clerk.
April 26, 1897. 18-2t

WATER-WORKS.

CHAMPLAIN, N. Y.

Sealed proposals will be received by the Board of Water Commissioners of the village of Champlain, N. Y., up to 7 o'clock p. m. of Friday, May 21st, 1897, for furnishing materials and for constructing a system of water-works for said village. There will be required, approximately, the following:
362 tons (5¼ miles) of cast-iron pipe.
30 Fire Hydrants,
18 Gate valves and boxes,
1 Stone pumping station,
1 Power pump of one million gallons capacity,
1 Water Wheel of 75 horse-power under 20 ft. head,
1 Penstock, 100 ft. by 5 ft. in diameter.

Bids will be received for furnishing any of the materials mentioned above or for constructing the water-works complete. A certified check equal to 2 per cent. of the bid must accompany each bid. Plans may be seen and specifications and blank forms of proposal may be procured at the office of the Secretary of the board at Champlain, N. Y. The right is reserved to reject any and all bids.

OLIVER ROBERTS, JR., President.
W. G. GRAVES, Secy. and Treasurer.
LOUIS BRASSARD,
SAMUEL PALMER,
Board of Water Commissioners.
Champlain, N. Y., April 28, 1897. 17-3t

U. S. ENGINEER OFFICE, Oswego, N. Y., April 17, 1897.—Sealed proposals for building stone superstructure on part of BREAKWATER, at Burlington, Vt., will be received here until noon, May 17, 1897, and then publicly opened. Information furnished upon application. W. S. STANTON, Maj. Engrs. 16-4t

SEWERS.

PELHAM MANOR, N. Y.

PUBLIC NOTICE IS HEREBY GIVEN by the Board of Sewer Commissioners of the Village of Pelham Manor, Westchester County, N. Y., that

Sealed proposals will be received for furnishing and laying in the MAIN SEWER SECTION of the Village of Pelham Manor, N. Y., as follows:

About 16,802 feet 8-inch Vitrified Pipe.
" 495 " 10 " " "
" 2,820 " 12 " " "
" 3,128 " 15 " " "
" 1,940 " 24 " " "
59 Manholes.
21 Lamp Holes.
13 Flush Tanks.

IN BAY SECTION:
About 7,986 feet 8-inch Vitrified Pipe.
17 Manholes.
8 Lamp Holes.
7 Flush Tanks.

IN PROSPECT HILL SECTION:
About 3,875 feet 8-inch Vitrified Pipe.
" 520 " 12 " " "
15 Manholes.
5 Flush Tanks.

Rock Excavation, per cubic yard.
Concrete, per cubic foot.

Each proposal must be accompanied by a certified check for $1,500 for Main Section, and $500 each on the other two Sections as a guarantee of good faith. Said check will be forfeited to the village in case the party submitting such proposal shall refuse to enter into a contract in accordance therewith within five days in case such proposal shall be accepted. After the execution of contract the check of successful bidder will be returned. All checks of unsuccessful bidders will be returned as soon as contract is awarded.

The successful contractor will be required to give a bond of not less than $10,000 on the Main Section and $2,500 on each of the other two Sections, with sufficient sureties (Surety Company preferred) to be approved by the Board, for the faithful performance of said contract, etc., as provided for in Section Six of said Chapter 375 of the Laws of 1889.

Specifications will be furnished and plans can be seen at the office of said Sewer Commission on or after May 3d, and until 4 o'clock p. m., Saturday, May 15th.

Sealed proposals must be received on or before 6 o'clock p. m., MONDAY, MAY 17th, and addressed to Mr. John C. Hazen, Clerk of the Board of Sewer Commissioners, Pelham Manor, N. Y.

Said Board reserves the right to reject any or all proposals.

F. CARLES MERRY, President.
JOHN C. HAZEN, Clerk.
DIEDRICH SCHMIDT,
HENRY B. B. STAPLER,
WILLIAM B. RANDALL,
17-3t Board of Sewer Commissioners.

Commonwealth of Massachusetts.

BOARD OF METROPOLITAN SEWERAGE COMMISSIONERS.

Sealed bids for building sections 26, 27, 28 and 29, Neponset Valley Intercepting Sewer, Dedham and West Roxbury, in accordance with the form of contract and specifications, to be furnished by the Board, will be received by said Board, at its office, 1 Mount Vernon Street, Boston, Mass., until 12 o'clock M. of SATURDAY, May 22, 1897. No bids will be received unless accompanied by a certified check for the sum of $1,000. All bids must be made upon the blank forms furnished by the Board. Some other particulars are estimated to be as follows:

	Length, feet.	Av. cut to 10 ins. below invert.	Maximum inside width.
Section 26....	4,075	16.5 ft.	45 ins. brick
Section 27....	3,440	13.0 "	34 " "
Section 28....	4,575	10.8 "	32 " "
Section 29	445	13.0 "	26 " "
	1,945	9.5 "	20 " "
	2,100	10.3 "	15 " pipe
	2,095	11.1 "	12 " "

Plans can be seen and specifications and form of contract can be obtained at the above office. Each bidder is required to make a statement indicating what sewer and similar work he has done, and to give references that will enable the Board to judge of his business standing. The Board reserves the right to reject any and all bids.

HOSEA KINGMAN,
TILLY HAYNES,
GEORGE A. KIMBALL,
Metropolitan Sewerage Commissioners.
WM. M. BROWN, JR., Chief Engineer. 18-2

U. S. ENGINEER OFFICE, St. Augustine, Fla., May 5, 1897.—Sealed proposals in triplicate for furnishing and delivering in place upon jetty at Northwest Entrance to Key West Harbor, Fla., 30,000 tons, more or less, RANDOM STONE, will be received here until 2 o'clock p. m., June 4, 1897, and then publicly opened. Information furnished upon application. W. H. H. BENYAURD, Lt.-Col., Engrs. 18-4t

For Other Proposals See Page XXII.

GAS.—Brooklyn, N. Y.—Mayor Wurster has approved the bids of the Union Gas Co. for a new contract to supply the city with gas for five years under the new laws at the following rates per 1,000 cu. ft.: For the first year, $1; second year, 97½ cts.; third year, 95 cts.; fourth year, 92½ cts., and fifth year, 90 cts. The maximum rates to private consumers are to be as follows: First year, $1.20; second year, $1.15; third year, $1.10; fourth year, $1.05; fifth year, $1. The price to private consumers last year was $1.25. General Jourdan, president of the company, is quoted as stating that within the next two weeks the outlying wards which have hitherto been poorly supplied will have 25 miles of additional pipe.

LOCKS AND DAMS.—Pittsburg, Pa.—Maj. Chas. F. Powell, U. S. Engrs., opened the following bids April 27 for constructing two locks and dams in the Allegheny River, as advertised in Engineering News; in addition to the separate bids given below, the T. A. Gillespie Co. bid $575,299, Michael J. Fenton, New York $550,849, and Heldmaier & Neu, Chicago, $406,406, as a combined bid for both contracts:

THE WESTERN ALGOMA BRICK CO., Rat Portage, Ont., is erecting a steam brick dryer at its yards in that city, with a capacity of 20,000 bricks per day.

STOWE-FULLER & CO., of Cleveland, O., have been awarded the contract for about 65,000 bbls. of Sandusky Portland cement, for use in constructing the Cleveland breakwater.

THE BOSTON BRIDGE WORKS, Boston, Mass., has just been awarded the contract for the Tukey's bridge at Portland, Me. The bridge will be 40 ft. wide and will cost about $80,000.

MR. WM. E. QUIMBY, New York, has removed his offices from 59 Liberty St. to the Beard Building, 122 Liberty St., where patrons are requested to call and examine the Quimby screw pump.

THE HABERKORN AIR BRAKE CO., Fort Wayne, Ind., has had suit brought against it by one of its directors in order to settle up the affairs of the company. It is claimed that very little business has been done by the company for about two years.

THE HUBBELL ELECTRIC LAMP CO., Scranton, Pa., has been formed to manufacture an electric lamp invented by Capt. C. J. & Mr. H. C. Hubbell. The capital stock of the company is $35,000. The lamps are for the use of miners and bicyclists, and will be put upon the market in the course of a month.

THE J. I. CASE THRESHING MACHINE CO., Racine, Wis., reports that it is very busy in the gas engine department and that the company has orders for a large number of smaller sizes of the Raymond improved engine; also that it is now building six 100-HP., six 50-HP. and a number of 75, 30 and 40-HP. engines.

THE BOND STEEL FENCE POST CO., of Adrian, Mich., has recently shipped 1,000 fence posts to the Cleveland & Pittsburg division of the Pennsylvania R. R., and is also furnishing a large number of steel signal posts to the Wheeling & Lake Erie, of the same general design as that illustrated in Engineering News of April 29. The company has recently received orders for these steel signal posts from the Chicago & West Michigan R. R. Co.

BIDS FOR BUILDING LOCKS AND DAMS NO. 2 (SIX-MILE ISLAND), AND NO. 3 (SPRINGDALE), IN THE ALLEGHENY RIVER.

Quantities.		Sloan, McIlvain & Ott Bros., Allegheny.	I. V. Hoag, Jr., Pittsburg.	C.I. McDonald, Pittsburg.	McArthur Bros. Co., Chicago.	Barnett & Record Co., Minneapolis.	T. A. Gillespie Co, Pittsburg.	Wm. B. Rodgers, Pittsburg.	Jas. McCarron, Philadelphia.	Jacob Friday & Sons, Pittsburg.	McLean, Kaufman & Co., Ptsbg & New York.	Hulings Bros., Pittsburg.	Keeling & Ridge, Pittsburg.
For Lock No. 2 and Abutment.													
Grubbing and clearing		$13.00	$100.00	$1.00	$1200.00	$500.00	$100.00	$100.00	$250.00	$200.00	$50.00	$1000.00	$10.00
Excavation: Earth	6,366 cu. yds.	.22	5.00	.50	1.30	4.80	.50	.40	.15	.50	.25	1.00	.40
Hard pan	50 " "	.75	5.00	.80	1.00	5.30	1.25	.90	.20	1.00	.40	2.00	1.60
Rock	1,883.5 " "	1.75	5.00	1.50	5.00	5.40	1.50	1.35	3.00	2.00	1.00	2.00	2.50
Embankment	73,064 " "	.48	.30	.35	.54	.55	.35	.45	.15	.50	.20	1.00	.75
Concrete: Natural cement	3,393 " "	3.59	7.00	4.64	5.30	7.60	6.00	4.75	3.59	6.00	4.66	7.00	6.00
Portland cement	12,341 " "	4.99	9.00	6.74	6.50	9.70	7.50	5.79	5.74	8.00	6.45	10.00	8.25
Stone filling in cribs	4,063 " "	1.25	2.00	1.25	1.40	1.40	1.75	2.40	1.50	2.25	2.20	2.50	2.00
Paving of cribs	368 sq. "	1.20	1.00	1.90	1.50	1.90	2.00	1.49	3.00	2.50	2.00	3.00	1.50
Paving of river bank	6,892 " "	1.50	1.00	1.00	1.50	2.00	2.00	1.49	3.00	2.50	2.00	3.00	1.50
White oak in gates	54,798 ft. B.M.	47.00	60.00	50.00	75.00	57.00	66.00	39.00	40.00	100.00	50.00	75.00	60.00
Quoins and sills	7,950 " "	60.00	60.00	50.00	85.00	90.00	66.00	39.00	40.00	100.00	50.00	75.00	40.00
Cribs, abutment and spars	82,016 " "	44.00	40.00	24.00	31.00	37.00	40.00	31.90	35.00	30.00	28.00	60.00	33.00
Hemlock in cribs	113,766 " "	19.50	25.00	18.00	22.00	20.50	25.00	22.90	23.00	20.00	22.00	40.00	25.00
Drift bolts in cribs	14,600 lbs.	.017	.025	.035	.04	.05	.025	.019	.0225	.04	.025	.03	.04
For Dam.													
White oak timber	783,000 ft. B.M.	30.00	40.00	24.40	32.00	37.00	55.00	36.50	35.00	30.00	28.00	60.00	35.00
Hemlock timber	658,700 " "	19.50	25.00	17.75	24.00	21.00	35.00	26.50	23.00	20.00	22.00	40.00	25.00
White oak, sheeting on back of dam	74,100 " "	28.00	40.00	21.50	42.00	36.00	45.00	36.50	35.50	38.00	35.00	75.00	25.00
Riprap stone filling	22,120 cu. yds.	1.00	2.00	1.19	1.40	1.90	2.00	2.40	1.59	2.25	2.20	3.50	2.00
Drift bolts	176,100 lbs.	.017	.025	.035	.04	.05	.025	.019	.0225	.04	.025	.03	.04
Dredging, foundation	54,390 cu. yds.	.17	.10	.25	.20	1.75	.20	.29	.25	.50	.30	1.00	.35
Refilling for dam	33,800 " "	.16	.10	.23	.20	.42	.15	.29	.15	.30	.30	1.00	.35
Backing of dam	6,100 " "	.15	.10	.23	.30	1.10	.30	.43	.15	.30	.30	1.25	.35
Hemlock piles, in place	95	4.32	10.00	9.00	8.00	10.00	12.00	8.10	4.00	10.00	6.00	10.00	10.00
Sheeting and scantling in foundation	159,144 ft. B.M.	16.00	50.00	25.00	50.00	25.00	40.00	31.90	23.00	30.00	40.00	75.00	15.00
Total		$220,493	$341,489	$243,201	$293,638	$474,215	$320,102	$293,821	$245,220	$342,662	$272,400	$548,001	$345,608
To pay for use of U. S. plant		500.00	3010.50	500.00	1500.00	2000.00	500.00	1000.00	1000.00	2000.00	3500.00	1450.00	.....
Samples: Sand		Poor.	Fair.	Poor.	Good.	Poor.	Good.	Good.	Poor.	No samples.	Good.	Exc'lent	Good.
Gravel		Exc'lent	Good.	Exc'lent	Exc'lent	Exc'lent	Exc'lent	Good.	No sam.		Exc'lent	Fair.	Poor.
For Lock No. 3 and Abutment.													
Grubbing and clearing		$142.00	$1.00	$1.00	$1200.00	.....	$100.00	$100.00	$250.00	$200.00	$50.00	$500.00	$100.00
Excavation: Earth	28,510 cu. yds.	.12	2.85	.40	.60	.....	.50	.65	.15	.50	.25	.66	.40
Hard pan	50 " "	.75	2.85	.80	1.00	.....	1.25	.90	.20	1.00	.40	1.35	1.00
Rock	1,120 " "	1.75	2.85	1.75	6.00	.....	1.50	1.35	3.00	2.00	1.00	1.65	2.50
Embankment	6,422 " "	2.19	.30	.35	.60	.....	.35	.45	.15	.50	.20	.65	.75
Concrete: Natural cement	3,902 " "	4.18	7.00	4.64	5.50	.....	6.00	4.75	3.59	6.00	4.66	5.05	6.00
Portland cement	11,407 " "	5.57	9.00	6.74	6.50	.....	7.50	5.79	5.74	8.00	6.45	7.45	8.50
Stone filling in cribs	5,942 " "	1.00	2.00	1.25	1.30	.....	1.75	2.40	1.59	2.00	2.20	1.65	2.50
Paving of cribs	423 sq. "	1.10	1.00	1.90	1.50	.....	2.00	1.49	3.00	2.25	2.00	2.75	1.50
Paving of river bank	1,593 " "	1.40	1.00	1.00	1.50	.....	2.00	1.49	3.00	2.25	2.00	2.30	1.50
White oak in gates	54,798 ft. B.M.	47.00	60.00	50.00	75.00	.....	66.00	39.00	40.00	100.00	50.00	65.00	70.00
Quoins and sills	7,950 " "	60.00	60.00	50.00	85.00	.....	66.00	39.00	40.00	100.00	50.00	65.00	45.00
Cribs, abutments and spars	60,670 " "	44.00	40.00	24.00	31.00	.....	40.00	31.90	35.00	30.00	28.00	40.00	35.00
Hemlock in cribs	79,150 " "	19.50	25.00	18.00	22.00	.....	25.00	22.90	23.00	20.00	22.00	28.00	20.00
Drift bolts in cribs	10,620 lbs.	.017	.025	.035	.04	.....	.025	.019	.0225	.04	.025	.03	.04
For Dam.													
White oak timbers	530,484 ft. B.M.	30.00	40.00	24.40	32.00	.....	55.00	36.50	35.00	30.00	28.00	47.00	35.00
Hemlock timber	465,618 " "	19.50	25.00	17.75	24.00	.....	35.00	26.50	23.00	20.00	22.00	30.00	25.00
White oak, sheeting on back of dam	59,365 " "	28.00	40.00	21.50	42.00	.....	45.00	36.50	35.50	38.00	35.00	52.00	25.00
Riprap stone filling	17,714 cu. yds.	1.07	2.00	1.14	1.40	.....	2.00	2.40	1.59	2.00	2.20	2.00	2.50
Drift bolts	141,038 lbs.	.017	.025	.035	.04	.....	.025	.019	.0225	.04	.025	.03	.04
Dredging, foundation	34,430 cu. yds.	.16	.10	.25	.20	.....	.20	.29	.25	.50	.30	.28	.35
Refilling for dam	27,180 " "	.15	.10	.23	.20	.....	.15	.29	.15	.30	.30	.28	.35
Backing of dam	4,880 " "	.15	.10	.23	.30	.....	.30	.43	.15	.30	.30	.40	.35
Hemlock piles, in place	77	4.32	10.00	10.00	8.00	.....	12.00	8.10	4.00	10.00	6.00	5.00	10.00
Sheeting and scantling in foundation	107,373 ft. B.M.	16.00	50.00	24.00	50.00	.....	40.00	31.90	23.00	30.00	40.00	54.00	15.00
Total		$175,932	$325,805	$193,979	$224,972	.....	$255,297	$234,397	$189,449	$260,523	$219,683	$290,799	$273,016
To pay for use of U. S. plant		500.00	3010.50	500.00	1500.00	.....	500.00	1000.00	1000.00	2000.00	3500.00	1450.00	.....
Samples: Sand		Poor.	Fair.	Poor.	Good.	.....	Good.	Good.	Poor.	No samples.	Good.	Exc'lent	Good.
Gravel		Exc'lent	Good.	Exc'lent	Exc'lent	.....	Exc'lent	Good.	No sam.		Exc'lent	Fair.	Poor.

ASPHALT STRIPS.—Brooklyn, N. Y.—Bids for laying the first asphalt strips for bicyclists in this city were opened May 5. The asphalt will be 5 ft. wide and will not be laid on concrete, the present granite blocks being lowered so that an asphalt surface can be added and the street remain even. The bids were: Eastern Bermudez Co., $1.30 a sq. yd.; Cranford & Co., $1.50; all with 5-year guarantee.

BRICK PAVING, ETC.—Louisville, Ky.—The lowest bids opened April 30 for street work, to cost about $31,000, were as follows: Paving with vitrified brick, George Gosnell, $8.20 per square of 100 sq. ft.; grading and excavating, M. Lawler & Sons, 21 cts. a cu. yd.; granitoid sidewalk, Louisville Artificial Stone Co., $1.98 a sq. yd.; brick sidewalk, Jacob Schertzer, 47 cts. a sq. yd. for new work and 10 cts. for old work.

INDUSTRIAL NOTES.

THE NATIONAL METER CO., New York, has removed its offices to 118 Chambers St.

THE STANDARD SILICA CEMENT CO., New York, has removed its offices from 156 Fifth Ave. to 120 Liberty St.

THE RICHMOND LOCOMOTIVE WORKS, Richmond, Va., has received an order for 12 heavy locomotives from the Southern Ry. Co.

THE TONAWANDA IRON AND STEEL CO., North Tonawanda, N. Y., is again enlarging its plant, increasing the furnace capacity one-third.

THE CASSADAGA CEMENT CO., Dunkirk, N. Y., has purchased the plant of the Chautauqua Cement Co. Mr. C. M. Reed, Erie, Pa., is interested.

THE SHIFFLER BRIDGE CO., Pittsburg, Pa., has the contract for a heavy ordnance machine shop, 192x112 ft. and 50 ft. high, to be built by the Midvale Steel Co.

MR. W. R. OSBORNE, 152 State St., Perth Amboy, N. J., has just finished two 4-in. artesian wells at Bryn Mawr, Pa., for Mr. John Blakeley. He is also finishing two more wells for Mr. H. Y. Yetman, Pleasant Plains, Staten Island, N. Y.

THE STILWELL-BIERCE & SMITH-VAILE CO., through its Chicago branch, has secured the order for a 2,000,000-gallon pumping engine, surface condenser, air-pump, etc., for Jacksonville, Ill.

THE CARD ELECTRIC CO., Mansfield, O., has been awarded a contract by the Cleveland Ship-Building Co., Cleveland, O., for two power generators and 25 power motors, aggregating in all 548 HP.

THE FALK MFG. CO., Milwaukee, Wis., has received a contract to weld the joints of about 30 miles of the street railway tracks of the Milwaukee Electric Ry. & Light Co., Milwaukee, Wis. The work is reported as to cost between $50,000 and $60,000.

THE PHOENIX IRON WORKS CO., Cleveland, O., will dispose of its entire plant, May 15, at a receiver's sale, including all of the real estate and personal property. The personal property is appraised at $25,759. Mr. W. D. Sayle, 1123 St. Clair St., Cleveland, is the receiver.

THE LACLEDE CAR CO., St. Louis, Mo., has received a contract for 100 motor cars for the Consolidated Traction Co., of Pittsburg, Pa. A local paper states that this company has made about 2,000 street cars within the last six years for the parties interested in the present contract.

THE STANDARD PAVING CO., Buffalo, N. Y., has elected new officers as follows: Pres. and Gen. Mgr., John Miller; Vice-Pres., Mathias Rohr; Treas., George Sandrock; Secy., W. H. Dolan, Messrs. E. C. Shafer, Frank J. Ilig and H. P. Burgard have withdrawn from the company.

THE CONSOLIDATED RAIL JOINT CO., of Chicago Heights, Ill., has bought the plant of the Muskegon (Mich.) Iron & Steel Co., which has been lying idle five years. The works cost $150,000, but were sold for much less. The company is said to get a bonus of $10,000, conditional on employing 100 men.

THE PLAYFORD STOKER CO., Cleveland, O., has a contract from the National Water Tube Boiler Co., New Brunswick, N. J., for two Playford mechanical stokers for 300 HP. boilers for the Kansas City water-works. The new catalogue of the company contains a report of the duty test of one tubular boiler equipped with its stoker at the Grasselli Chemical Works.

THE CAMPBELL & ZELL CO., Baltimore, Md., has just received a contract for 1,204-HP. Zell improved water-tube safety boilers for the Metropolitan R. R. Co., Washington, D. C., making the fifth order from this company, and aggregating nearly 3,000-HP. of Zell boilers now in use in its several power houses in Washington.

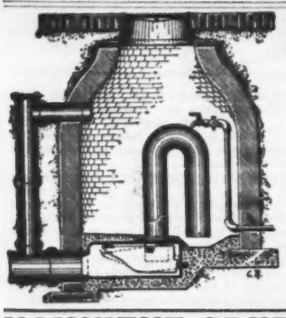
THE EGYPTIAN PRESERVATIVE CO., Girard Building, Philadelphia, Pa., reports that its Cerion is being introduced into mines to protect iron and steel in the mines. Iron ship plate coated with Cerion after being immersed in sea water at the Norfolk navy yard for 3½ months came out free from barnacles, seagrass or corrosion.

THE FRANKFORT BRICK & CONSTRUCTION CO., Frankfort, Ind., has been incorporated with a capital stock of $42,000, succeeding the firm of Ross & Hedgcock. The company will continue the manufacture of brick and proposes also to engage in contracting throughout the state. Pres., W. R. Cunningham; Vice-Pres., Dr. N. C. Davis, Secy., Willard Morris; Treas., Robt. Bracken.

THE GAFFNEY VITRIFIED & PRESSED BRICK CO., St. Louis, Mo., will vote June 21 on a proposition to increase the capital stock of the company from $50,000 to $60,000, to change the name of the corporation and to increase the number of the directors. As soon as the reorganization is completed, it is said that operations will be resumed at the company's plant in Baden.

THE NEW YORK MASTIC WORKS, 35 Broadway, New York, American branch of Compagnie Generale des Asphaltes de France, has received the contract for laying 900 sq. yds. of pavement at Fort Columbus, Governor's Island, N. Y. H. The company has just completed the sidewalks at the 110th St. entrance of Morningside Park for the park department, for which it laid over 200,000 sq. ft. of walks last year.

THE NATIONAL ELASTIC NUT CO., Milwaukee, Wis., has recently placed an order with the National Machinery Co., of Tiffin, O., for two more of its large nut making machines, previously described in these columns. Mr. Paine states that when these machines are installed they will have facilities for turning out over 30,000 nuts daily. The elastic nut has recently been specified on some heavy railway bridge work.

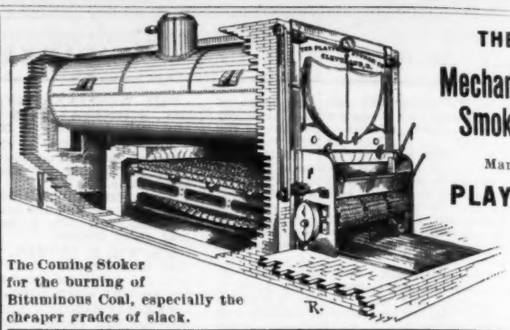


THE VAN VRANKEN AUTOMATIC SEWER FLUSH TANK

Will discharge with the smallest feed stream of any tank in the market. Does not require excavation below the bottom of the sewer; can be used where the depth of sewer is but two and one-half feet.

For catalogues, discounts and other particulars, address

J. LELAND FITZGERALD,
SCHENECTADY, NEW YORK.



The Coming Stoker for the burning of Bituminous Coal, especially the cheaper grades of slack.

THE PLAYFORD
Mechanical Stoker and Smokeless Furnace
Manufactured by the
PLAYFORD STOKER COMPANY
Cleveland, Ohio.

HAWKEYE GRUB AND STUMP MACHINE

Makes clean sweep of two acres at a sitting. Pulls an ordinary Grub in 1½ minutes.

Is a MONEY SAVER for CONTRACTORS and ENGINEERS having Right-of-Ways and Reservoir Sites to clear, and Levee and Dike Contracts.

90 page Catalogue free on application.
Works on either standing Timber or Stumps.

MILNE MFG. CO., 267 Eighth St., Monmouth, Ill

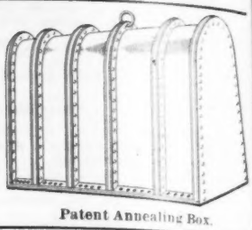
JAMES McNEIL & BRO.

29th and Railroad Sts., Pittsburg, Pa.

Manufacturers of

Riveted Steel Pipe, Patent Annealing Boxes,

Boilers, Heavy Plate and Sheet Iron Work, Etc.



Patent Annealing Box.

J. N. Du Barry, Jr., & Co.
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RAILWAY SUPPLIES,
CONTRACTORS' SUPPLIES,
CEMENTS.

J. N. Du Barry, Jr., & Co.
Builders' Exchange, Baltimore, Md.
CEMENTS,
BUILDERS' MATERIALS,
HARDWOOD and SLATE MANTELS,
SEWER PIPE.

Agents for Stirling Boilers, Meissner Stoker, Pedrick & Ayer Co.

NONPAREIL
Cork Pipe Covering.
HIGHEST EFFICIENCY.

Not affected by any steam-heated surface, water, dampness, frost, concussion nor vibration.

HOLDS ITS FORM. VERY TOUGH

POWER
POWER SPECIALTY Co.
126 Liberty St., N. Y.

"BLASTING CAPS."

Troisdorf Detonators

FR. SCHROEDER
Sole Agent for the U. S. A.,
66 Maiden Lane New York.

RHENISH WESTPHALIAN EXPLOSIVES COMPANY, LIMd.
COLOGNE

EXTENSIBLE SEWER BRACE,
(PATENTED)

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FOR WATER PIPES, FOR GAS, OIL, COMPRESSED AIR, ETC.

Strongest, Cheapest, Easiest to Use.
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CHAPMAN DERRICK AND WRECKING CO.,
27 William St., New York.
EXPERIENCED DIVERS
For Laying and Repairing Pipe Under Water, Submarine Examinations.
Office open day and night.
Two long distance telephones, Broad, 1831 and 1832.

DITCH WORK.

RANDOUL, ILL.

Sealed proposals will be received at Rantoul, Ill., on Thursday, May 20, 1897, by the Commissioners of the big slough special drainage district, for dredging 10 miles of main ditch and one mile of lateral, requiring an average cut of 3½ feet and a total excavation of about 52,500 cubic yards. Excavated earth to be placed outside of present spoil banks. Bids will be received until 12 m. and opened immediately thereafter. Each bid must be accompanied by a certified check of $500. The right is reserved to reject any and all bids. For information address

J. S. RISING, Clerk,
18-2t Rantoul, Illinois.

BRICK SEWERS.

OFFICE
BOARD OF SEWERAGE COMMISSIONERS,
QUINCY, MASS., May 11, 1897.

Sealed proposals for building about 900 feet of 30-inch by 45-inch brick sewer, and about 4,300 feet of 24-inch by 36-inch brick sewer, endorsed, "Proposal for building Section one of the Quincy Sewerage System," and accompanied by a certified check for $1,000, will be received at this office until 7:30 o'clock of Thursday, May 27th, 1897.

Plans may be seen and form of contract and specifications obtained at this office. Brick, cement and ironwork will be furnished by the city. The Commissioners reserve the right to reject any or all proposals or to accept the proposal they deem best for the city.

19-1t E. W. BRANCH, Engineer.

ROAD IMPROVEMENTS.

NEWTOWN, L. I.

Sealed bids or estimates for improving roads, streets and avenues in the Town of Newtown will be received by the Board of Highway Commissioners and Supervisors of said town, at the Town Hall, in the Village of Newtown, on Tuesday, the 18th day of May, 1897, at 10 o'clock, a. m., at which time and place the bids will be publicly opened and read and the contract awarded as soon as practicable thereafter.

The right is reserved to reject any or all of the bids if deemed for the best interests of the Town of Newtown.

Deposits will be required with all bids.

Bonds will be required from the successful bidder with sureties satisfactory to the Supervisor.

For particulars regarding deposits, bonds, etc., and for specifications, forms of bid and further information, apply to

JOSEPH BERMEL,
Supervisor, Middle Village, Newtown, L. I., or to
JOHN J. McLAUGHLIN,
Engineer in charge, Bank Building, Jamaica, L. I. 19-1t

WATER-WORKS.

WEST CHESTER, PA.

Sealed proposals will be received by the Borough Council of West Chester, Pa., until seven o'clock p. m. of Monday, May 24th, 1897, and then publicly opened, for an extension to the Water-Works System of said Borough.

The work to be done will be divided into the following parts, and proposals are asked for on each item separately, as follows:

1st, Cast Iron Pipe and Special Castings.
2d, Gate Valves.
3d, Pipe Laying.
4th, Receiving Reservoir.
5th, Engine and Boiler House.
6th, Pumping Engine and Appurtenances.
7th, Boiler and Chimney.

All to be in accordance with the specifications and drawings issued by the Borough Council, copies of which may be had upon application to the Borough Treasurer or to the Engineer, W. W. Lindsay, 328 Chestnut St., Philadelphia.

The Borough Council distinctly reserves the right to reject any or all bids and to accept such as it may deem best for the interest of the Borough.

By order of the Borough Council.
W. S. UNDERWOOD,
Borough Treasurer.

W. W. LINDSAY, Engineer, 328 Chestnut St., Philadelphia. 19-1t

WATER-WORKS INTAKE.

MICHIGAN CITY, IND.

Notice is hereby given that the Board of Control of the Indiana State Prison at Michigan City, Ind., invite the submission of plans and specifications and bids for the improvement of the water-works at said prison. Said improvement to consist of an intake system of about 2,000 ft. into Lake Michigan. The Board reserves the right to reject any and all bids. Bids will be received until June 2d, 1897. For particulars address

19-1t CHARLEY HARLEY, Warden.

MILLER AUTOMATIC SIPHON

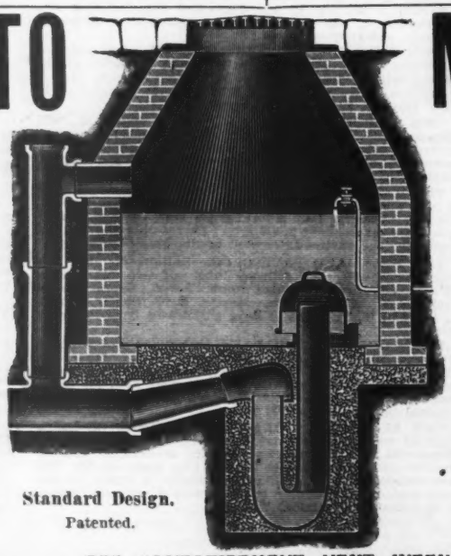
—FOR—

Intermittent Flush Tanks.

SIMPLEST SIPHON MADE.

No Moving Parts;
No Valves;
No Small Tubes to clog or choke.

WE GUARANTEE EVERY SIPHON TO BE ABSOLUTELY RELIABLE—NO MATTER HOW SMALL THE STREAM MAY BE.



Standard Design.
Patented.

—FOR—

Flushing Street Sewers and for Sub-Soil Irrigation.

Most Reliable Siphon Made.

Received Highest Award at World's Columbian Exposition, 1893 for SIMPLICITY OF CONSTRUCTION, EFFICIENCY and RELIABILITY.

MANUFACTURED BY

Pacific Flush Tank Co.

84 LA SALLE STREET, CHICAGO.

WRITE FOR CATALOGUE AND PRICES.

SEE ADVERTISEMENT NEXT WEEK.

THE S. FREEMAN & SONS MFG. CO., Racine, Wis., is busy in both boiler and tank departments at present. Among the orders on hand for boilers are four 60-in. × 18 ft., for Mason City, Ia., and four 66-in. × 16-ft., to be shipped to West Virginia. The company is building a number of tanks for soap works in Kansas City, 19 ft. × 24 ft., and is just finishing a steel stack 175 ft. high × 8 ft. in diameter, for the Calumet Electric Ry., at Burnside, near Chicago, Ill.

THE PAYNE ENGINEERING CO., New York, has been incorporated with the sole rights to the Payne engine, which will hereafter be built by the Wright Steam Engine Works, Newburg, N. Y. The company will also act as General Agents of the Wright Steam Engine Works for its Wright and its Dixon-Corliss engines. The company is composed of Messrs. Stephen H. Payne, Nathan B. Payne and Albert G. Duncan, formerly Constructing Engineer for Westinghouse, Church, Kerr & Co. Its office is at 41 Dey St.

THE FISHER GOVERNOR CO., Marshalltown, Iowa, has just shipped 20 of its governors to Vienna and several to Halle, near Berlin, Germany. The company has also recently made shipments to Buffalo, N. Y.; Sioux City, Ia.; Pueblo, Colo.; Providence, R. I.; Unadilla, Ga., water works. Mr. Geo. R. Estabrook, Secy. and Treas., advises our representative that the company will soon put upon the market a new device, to be known as the Fisher combined governor and reducing valve.

THE ABBOT-GAMBLE CONTRACTING CO., St. Louis, in conjunction with the National Conduit & Cable Mfg. Co., New York, has been awarded the contract for all the conduits to be constructed for the use of the electric light companies in St. Louis, Mo. The work is being done under the name of the National Conduit Co., of St. Louis. The contract covers about 25 miles of streets and will amount to $350,000. They are using cement-lined pipe, manufactured by the National Conduit & Cable Mfg. Co., and are establishing a branch factory in St. Louis for the purpose of supplying western business.

THE MONARCH CEMENT CO., Cleveland, O., is erecting a large plant for manufacturing Portland cement at Bronson, Mich., where it controls a large deposit of marl, analyzing, it is claimed, 97½% calcium carbonate. All buildings will be of iron, and the total capacity of the plant will be 1,000 bbls. per day. When put in operation Mr. H. D. Hassan, formerly Superintendent of the Sandusky Portland Cement Co., will have charge of the mechanical part of the work, and Mr. Charles J. Wheeler will be the chemist. The officers of the company are: J. F. Townsend, Pres.; C. B. Bishop, Vice-Pres.; and C. B. Stowe, Secy. and Gen. Mgr.

R. POOLE & SON CO., Baltimore, Md., has just been awarded a contract by the government for the building of 35 spring return-carriages for 12-in. rifled mortars, to be delivered by April, 1898. Local papers state that the company is now at work on a contract calling for 57 similar carriages, which was signed in August, of 1896. Of this lot 30 carriages have been completed and the balance will be ready for delivery by September next. All but one of the completed carriages have been delivered to the government, having been shipped to Sandy Hook, Fortress Monroe and other points on the coast where fortifications are being built.

MR. WILLIS SHAW, 506 New York Life Building, Chicago, Ill., has just shipped a carload of hoisting engines and rock drills to the Southern California Mountain Water Company. He has an order from Venable Bros., Atlanta, Ga., for an 800-ft. span suspension cable-way for their granite quarries, and reports other sales as follows: 2 channeling machines for Flynn & Co., Philadelphia; 56-ton steam shovel, A. J. Twiggs, Augusta, Ga.; crushing machinery, Dessau Company, Iron Mountain, Mich.; hoisting and quarrying machinery, Watkins & Hardaway, Tallassee, Ala.; Williams & Schmidt, Granville, N. Y., Mathews & Keith, Manitowoc, Wis.; Consolidated Stone Co., Chicago, Ill., and G. R. Root, Buckingham county, Va.

NEW COMPANIES.—Central Iron & Steel Co., Harrisburg, Pa.; $1,000,000, commencing with $100,000; to manufacture iron and steel; Treas., Gilbert M. McCauley, Harrisburg, Pa.

Ingalls Lime Co., Indianapolis, Ind.; $100,000, commencing with $45,000; to conduct a general business in lime and stone; W. E. Kurtz, A. B. Grover, A. B. Willard, R. E. Ranch and John G. Thurtle.

Pressed Steel Equipment Co., New York, N. Y.; $5,000,000, commencing with $500; to conduct a general manufacturing business; D. N. Maxson, S. C. Mastick, W. D. Goldsborough and S. Roberts, New York, N. Y.; D. N. Maxon and Ernest Hopkinson, Brooklyn, N. Y.

West End Brick Co., Allentown, Pa.; $50,000, commencing with $5,000; to manufacture brick; Treas., James K. Bowen.

Philadelphia Clay Co., Philadelphia, Pa.; $50,000, commencing with $5,000; to manufacture brick and other articles of clay; Treas., P. Wilson Adler, 1601 North 52d St.

The Peter Fell Co., Trenton, N. J.; $50,000, commencing with $4,500; to manufacture all kinds of bricks; Frederick Fell, C. H. Reichert and George Wenzel.

Hendricks Mfg. Co., Hendricks, W. Va.; $100,000, commencing with $10; to conduct a general manufacturing business; W. O. McNeeley, J. A. McNeeley, C. B. Clark, T. M. Ryan and H. F. Coleback.

Cambridge Chair Co., Wheeling, W. Va.; $50,000, commencing with $500; to manufacture all kinds of furniture; J. W. Campbell, C. C. Cosgrove, J. A. Carr, C. A. S. Pace, Cambridge, O., and T. G. McCortle, Cumberland.

Pittsburg Screw & Bolt Co., Pittsburg, Pa.; $50,000, commencing with $5,000; to manufacture and sell nuts and bolts; Treas., D. A. Moore.

Clarksburg Bridge Co., Clarksburg, W. Va.; $25,000, commencing with $50; to collect toll, etc.; C. M. Hart, David Davidson, Jasper Y. Moore, R. T. Lowndes and Nathan Goff.

American Electric Traction Co., New York, N. Y.; $500,000, commencing with $1,000; to operate under the John McLeod Murphy electric railway propulsion invention, etc.; Daniel H. Gilligan and Howard E. Foxall, Brooklyn, N. Y.; John E. Murphy, Torrington, Conn.; G. H. Cary, New York, N. Y.; James B. W. Lansing, Tenafly, N. J.

James River Pulp & Paper Co., Bethlehem, Pa.; $100,000, commencing with $100; to conduct a general paper business; W. J. Smith and F. L. Montross, Camden, N. J.; J. F. Forney and Thos. J. Beck, Philadelphia, Pa.; Wm. M. Beck, Bethlehem.

Benvenue Granite Co., Brooklyn, N. Y.; $100,000, commencing with $500; to quarry and deal in all kinds of material used in construction; Wm. A. Engeman, A. N. Battersby, Chas. V. Lapp, F. W. Buermeyer, and Geo. H. Engeman.

Cloud Steel Truck Co., Chicago, Ill.; $600,000, commencing with $1,000; to manufacture and sell railway materials, etc.; C. L. Sullivan, W. J. Dickinson, E. W. Rosenberg, W. E. Smith and Willard A. Smith.

ROAD WORK.

EASTCHESTER, N. Y.

Sealed proposals will be received by the Town Clerk of the Town of Eastchester, Westchester County, New York, until 12 o'clock noon, May 20, 1897, and publicly opened immediately thereafter, for furnishing all labor and material for regulating, grading, paving and otherwise improving about 6,800 lineal feet of the road or highway in said town, extending from the iron bridge over the Bronx River to the point of intersection of the Old and New White Plains Road, nearly opposite the residence formerly occupied by Charles V. Morgan.

Plans and profiles may be seen. Specifications and other information may be obtained at the office of the Town Clerk of said Town.

The right is reserved to reject any or all bids.

By order of the Town Board and Commissioner of Highways of the Town of Eastchester.

WILLIAM J. FISHER,
Town Clerk, Town of Eastchester.

Dated May 6th, 1897. 19-1t

ROAD WORK.

SEA CLIFF, L. I.

Sealed proposals will be received by the President of the Board of Trustees, of the Village of Sea Cliff, L. I., by mail or at the Board room, till 8 o'clock p. m., Wednesday, May 19th, 1897, for grading, regulating and macadamizing about three and one-half miles of streets and for curbing sidewalks and paving gutters in said village.

Specifications may be obtained on application to Frank J. Cole, Village Clerk. Plans and Profiles may be seen at the Village Board Room on Tuesday and Wednesday, May 18th and 19th, on which days the engineer will answer questions and will show prospective bidders over the streets to be macadamized. The Trustees reserve the right to reject any or all bids.

By order Board of Trustees.

19-1t FRANK J. COLE, Clerk.

U. S. ENGINEER OFFICE, Army Building, New York, April 30, 1897.—To Whom It May Concern: Whereas the wreck of the steamship "Alvena" has been lying 1,500 feet southeast from Buoy B1, Main Channel, New York Harbor, since January 19, 1897; has been abandoned by owners, and is a dangerous obstruction to navigation, notice is hereby given to all persons interested in said vessel, her cargo and other property therein, that the wreck will be removed by the United States as a derelict, under authority of law. Sealed proposals for REMOVAL OF SAID WRECK will be received here until 12 m., June 1, 1897, and then publicly opened. Information furnished on application. WILLIAM LUDLOW, Lieut.-Col., Engrs. 19-3t

U. S. ENGINEER OFFICE, Telephone Building, Detroit, Mich., May 10, 1897.—Sealed proposals for improving Detroit River, Mich., by REMOVAL OF BOULDERS, BED-ROCK, OR OTHER MATERIAL, from Ballards Reef Channel, will be received here until 12 o'clock noon (standard time), June 1, 1897, and then publicly opened. Information furnished on application. G. J. LYDECKER, Lt.-Col. Engrs. 19-3t

POSTPONEMENT.
ELECTRIC LIGHTING.

CLERK'S DEPARTMENT, }
CITY OF MOBILE, ALA. }

Plans, Specifications and Sealed Bids addressed to the Hon. Harry T. Inge, Chairman of the Street Committee of the City of Mobile, Alabama, for lighting the city, will be received until June 1 (postponement from May 15), 1897, at which date they will be publicly opened.

Proposals must be for a term of five years, beginning Nov. 1st, 1897, for Two Hundred (200) Arc Lights of 2,000 candle-power each, direct current, to be lighted every night from sunset until sunrise.

A certified check for One Thousand Dollars ($1,000.00) as a guarantee of the faithful performance of contract must accompany each bid, which sum of $1,000.00 shall be forfeited to the City of Mobile in the event of failure to furnish by the party or parties awarded the contract a good and sufficient bond in the sum of Ten Thousand Dollars within ten days from the awarding of said contract.

The city reserves the right to reject any or all bids.

For specifications address

HARRY T. INGE,
Chairman of Street Committee,
19-2t Mobile, Ala.

WALWORTH RUN SEWER.

CLEVELAND, OHIO.

Bids will be received by the Secretary of the Board of Control of the City of Cleveland, Ohio, up till noon May 22d, 1897, for constructing the second portion of the Walworth Run sewer.

The work consists of about 4,400 lineal feet of sewer ranging from 11 ft. 6 ins. to 14 ft. 9 ins. in interior diameter.

Bids must be made upon blanks furnished by the Chief Engineer, and accompanied by a certified check in the sum of Fifteen Thousand ($15,000.00) Dollars upon a solvent bank in the City of Cleveland.

Plans and specifications are on file and can be seen at the office of the Chief Engineer.

GEO. R. WARDEN,
Director of Public Works.
M. E. RAWSON, Chief Engineer. 19-1t

U. S. ENGINEER OFFICE, 39 Whitehall St., New York, April 26, 1897.—Sealed proposals for DREDGING and ROCK EXCAVATION in East Chester Creek, N. Y., will be received here until 12 o'clock noon, May 26, 1897, and then publicly opened. Information furnished on application. H. M. ADAMS, Major, Engrs. 17-4t

U. S. ENGINEER OFFICE, 136 Island St., Grand Rapids, Mich., April 15, 1897.—Sealed proposals for REPAIRING Government Pier at Portage Lake, Mich., will be received here until 12 o'clock, noon, May 14, 1897, and then publicly opened. Information furnished on application. C. M'D. TOWNSEND, Capt., Engrs. 16-4t

U. S. ENGINEER OFFICE, Oswego, N. Y., April 30, 1897.—Sealed proposals for EXCAVATING ROCK in Saint Lawrence River, N. Y., will be received here until June 1, 1897, and then publicly opened. Information furnished upon application. W. S. STANTON, Maj. Engrs. 18-4t

CAST IRON WATER PIPE AND SPECIAL CASTINGS.

SYRACUSE, N. Y.

Sealed proposals will be received at the office of the Syracuse Water Board, City Hall, Syracuse, N. Y., until 2:30 o'clock p. m., of the 21st day of May, 1897, for furnishing and delivering on platform cars in the city of Syracuse, N. Y.,

150 tons of 16-inch pipe.
450 " " 12-inch "
100 " " 10-inch "
400 " " 8-inch "
250 " " 6-inch "
10 " " 4-inch "
80,000 pounds of special castings.

The delivery of the pipe and specials must commence July 1st, 1897, and be fully completed by August 15th, 1897.

The successful bidder will be required to execute the contract with the required surety in the sum of two thousand dollars in ten days after notice that the work has been awarded to him.

Blank forms of contract, proposals, bond, and specifications can be obtained at the Engineer's office of the Syracuse Water Board, 113 Lock St., in said city, on application.

Proposals should be endorsed, "Tenders for Water Pipe," and be addressed to

W. R. HILL,
Chief Engineer and Superintendent, Syracuse Water Board, Syracuse, N. Y. 19-1t

TREASURY DEPARTMENT, U. S. LIFE-SAVING SERVICE, Washington, D. C., May 6, 1897.—Sealed proposals will be received at this office until 2 o'clock p. m., of Thursday, May 27, 1897, for the construction of LIFE-SAVING STATIONS at the following points on the coasts of Virginia and North Carolina, 6th Life-Saving District: Dam Neck Mills, on Virginia Beach, Va., 10 miles south of Cape Henry Light; False Cape, about 3 miles north of the line dividing Virginia and North Carolina; Caffeys Inlet, about 10¾ miles south of Currituck Beach Light, N. C.; and Oregon Inlet, near Oregon Inlet, N. C. Proposals to construct one or more of the stations will be considered. Forms of proposal, together with plans and specifications, can be obtained upon application to this office; to the Superintendents of Construction, Life-Saving Stations, 24 State Street, New York City; to the Superintendent, 6th Life-Saving District, Shawboro, North Carolina; or to the Assistant Inspector, 6th Life-Saving District, Elizabeth City, North Carolina. S. I. KIMBALL, General Superintendent. 19-1t

U. S. ENGINEER OFFICE, 136 Island St., Grand Rapids, Mich., April 20, 1897.—Sealed proposals for PIER EXTENSION at Muskegon Harbor, Mich., will be received here until 12 o'clock noon, May 19, 1897, and then publicly opened. Information furnished on application. C. M'D. TOWNSEND, Capt., Engrs. 16-4t

SANITARY DISTRICT OF CHICAGO.

TO CONTRACTORS.

The officers of the sanitary district of Chicago have been removed from the Rialto Building to the Security Building, corner 5th Ave. and Madison St., Chicago, Ill., where proposals for dredging the Chicago River between its mouth and Robey St. will be received by the Clerk until 12 m. (standard time) of Wednesday, the 19th day of May, 1897.

STREET IMPROVEMENTS.

ARVERNE-BY-THE-SEA, L. I.

Sealed bids or estimates will be received by the Board of Trustees of the Village of Arverne-by-the-Sea, Queens County, N. Y., at a meeting to be held at the office of the Village Clerk, in said Village, on the 22d day of May, 1897, at 3 o'clock p. m., for regulating, macadamizing and otherwise improving certain streets and avenues in said Village, in accordance with plans and specifications on file in the office of E. W. Conklin & Sons, Civil Engineers, Far Rockaway, N. Y.

No bids will be received or considered unless accompanied by a certified check to the amount of five hundred ($500) dollars.

The right is reserved by the Board of Trustees to reject any or all of the bids.

By order of the Board of Trustees of the Village of Arverne-by-the-Sea, N. Y.

JOHN R. WATERS, President.
A. E. KARELSON, Clerk. 19-1t

EARTHEN EMBANKMENT.

OFFICE OF TRUSTEES CITY WATER-WORKS, }
EVANSVILLE, IND., May 4, 1897. }

Sealed proposals addressed to the undersigned will be received by them until 12 o'clock, noon, May 24, 1897, for furnishing material and doing the work of constructing earthen embankment.

For particulars apply to undersigned, who will furnish specifications for examinations and making estimate of cost.

Each proposal must be accompanied by a cash deposit of $1,000.00, or a certified check to that amount, as a guarantee that the bidder, if awarded the work, will execute a contract therefor, with approved security, within five days from notification that he has been awarded the work. Failing to do so, said deposit or check for $1,000.00 will belong to the City of Evansville as liquidated damages.

Approved security in the sum of $5,000.00 will be required from the successful bidder as a guarantee for the completion of the contract.

The bids will be opened in the presence of the bidders at the above office, by the Trustees and their counsel, at 2 o'clock p. m., May 24, 1897.

The Trustees reserve the right to reject any and all bids.

F. GROTE,
JOSEPH BRENTANO,
B. F. VON BEHREN,
19-1t Trustees.

PAVING.

ITHACA, N. Y.

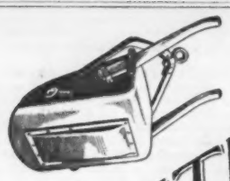
$30,000 to be expended this year. For specifications apply to

A. W. FORCE, Secretary.
Ithaca, N. Y. 19-2t

PROPOSALS FOR FURNISHING CERTAIN MATERIALS TO THE DISTRICT OF COLUMBIA.—Washington, D. C., May 8, 1897.—Sealed proposals will be received at this office until 12 o'clock m., May 29, 1897, for furnishing vitrified paving blocks or bricks; terra cotta pipe; vitrified invert blocks; vitrified invert bricks; granite curbing and bricks. Specifications and blank forms of proposals may be obtained at this office. JOHN W. ROSS, JOHN B. WRIGHT, W. M. BLACK, Commissioners, D. C. 19-1t

Contract Work Should Always be Advertised in a Paper Read by Contractors.

Nearly Every Prominent Contractor and Manufacturer of Contractors' Supplies in North America Reads Engineering News.



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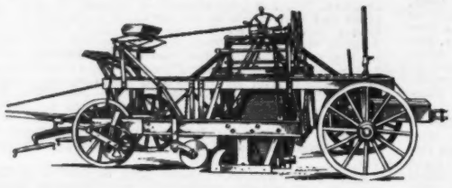
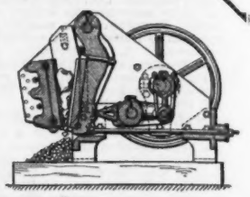




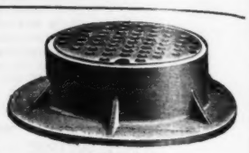
WESTERN WHEELED SCRAPER CO., AURORA, ILL.

Sewer Inlet

Acknowledged the simplest and most practical Sewer Inlet made.

Steel Screw Sewer Jacks, with Swivel Head.

Street and Sewer Castings made any style. Send blue prints for estimates.



Manhole.

THE SOUTH BEND FOUNDRY CO., South Bend, Ind.

KALAMAZOO FOUNDRY AND MACHINE CO., Kalamazoo, Mich.

The simplest, strongest, most durable and cheapest Sewer Brace on the market.

THE ONLY BRACE MADE WITH STEEL SCREW.

SANITARY CONSTRUCTION CO.,

56-58 PINE STREET, NEW YORK,

HOUSEHOLD GARBAGE CARBONIZER, for the Disposal of Domestic Waste.
PORTABLE GARBAGE FURNACES, for Hotels, etc.
STEAM DISINFECTING APPARATUS, for Public Institutions and Cities.
FORMALDEHYDE GAS REGENERATORS, for House Disinfection.
SEND FOR CATALOGUE. **GARBAGE CREMATORS** for Cities.

ALL THE CUTS Published in Engineering News

ARE FOR SALE AT REDUCED PRICES.

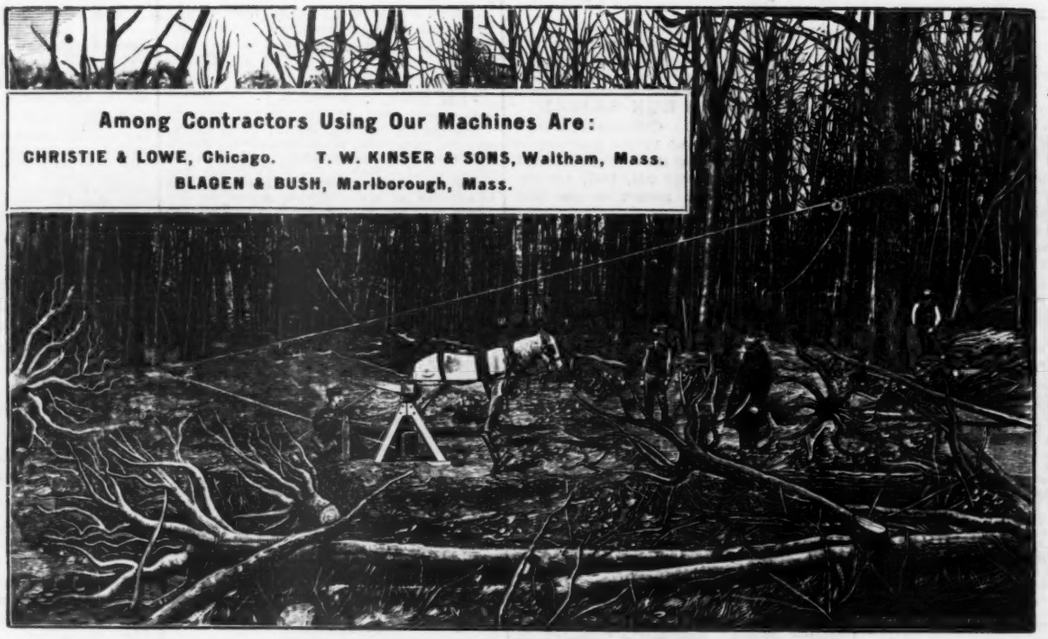
Half Tones, 15c. per sq. in., minimum price, $2.00

Line Etchings, 7c. per sq. in., minimum price, 50c.

Orders should be sent in as soon as possible after cuts appear in the paper, as all cuts must be finally disposed of one month after publication.

Contractors and Engineers!

Every Reader Interested in knowing more about these machines is requested to send for our **90-Page Illustrated Catalogue.** It is worth filing for reference.



Among Contractors Using Our Machines Are:

CHRISTIE & LOWE, Chicago. T. W. KINSER & SONS, Waltham, Mass.
BLAGEN & BUSH, Marlborough, Mass.

Our Machines Are in use in nearly every State and in many **Foreign Countries**

The above cut is made from a photograph illustrating **THE HAWKEYE GRUB AND STUMP MACHINE** at work. Can be used on either Standing Timber or Stumps. Makes a clean sweep of two acres at a sitting. Adapted to **Clearing Right of Ways Through Timber Land; Taking Stumps and Roots from Foundations for Levees, Dikes; Clearing Water Courses, Reservoir Sites, etc.**

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MILNE MFG. CO., 267 Eighth St., Monmouth, Ill.

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Contract Prices .
INDUSTRIAL NOT

Mr. C. Whiting
Laramie, Wyo.

Mr. Edwin H. We
Lock Haven, Pa.

Mr. James T. H
of Silver City, N.

Mr. C. C. Baldw
York, died at New

Mr. Geo. B. Patt
Commissioners of

Mr. D. A. Reed,
has been elected

Mr. T. C. McCol
ordered before the

Mr. Charles A.
Y., was married
livan, N. Y.

Mr. Edwin Mit
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East Lexington

Mr. J. A. Fairb
to the American
Streets, Louisvill

Mr. Wm. A. S
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Commissioner an

Mr. Bert Clark
Co., Denver, Co
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Junction, Colo.

Mr. A. H. Zell
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traveling abroa

Mr. Jacob A.
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& Boiler Co., o

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A., will be rel
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Mr. W. H. W
Lockport, N.
Mr. H. R. To
succeed him.

Mr. R. H. F
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Mr. Walter
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San Diego, C
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Electric Ry.

Lieut. Will
has been rel
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Prof. R. B
and Steam E
Lincoln, ha
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Mr. W. H.
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